THE CULTIVATOR.

TO IMPROVE THE SOIL AND THE MIND.

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Formidable Losses.

Every farmer who understands common arithmetic, may amuse and instruct himself with great advantage by a few interesting calculations. Successful tillage, as every one knows, consists in three important particulars,—namely, a good soil;—its fertility made accessible;—and the entire monopoly of that fertility by the crop intended. A soil may consist of the most valuable ingredients, but if these are kept immersed in a subterranean basin of water, as in many undrained soils during every wet season, they are as inaccessible to the plant, as if encased in walls of masonry. A hard, uncrumbled soil, is little better. But the greatest absurdity in farming, is to expend five or ten thousand dollars in the purchase of land, some hundreds more in fitting it for prolific crops, and then permitting one-fourth, one-third, or even one-half its costly value to be drawn out and destroyed by the growth of useless weeds!

We have known men who were exceedingly jealous of "their rights." Rather than be defrauded of a half dollar, they would rush into a law-suit costing twenty times that sum. Rather than lose "the best end of a bargain," they would resort to a great many very inconvenient and troublesome expedients. Rather than submit to furnish a neighbor's lawless hog with a single meal of undug potatoes, they would incur perpetual resentment. But strange things have not yet come to an end, for these are the very same men that submit with most admirable patience to the invasions and waste of thousands of elder bushes and burdocks, tens of thousands of mulleins and horse-thistles, and a hundred thousand Canada thistles, and a million red-root plants.

Now, the calculations we are about to propose, as above alluded to, are these: Let every land owner, whose fences are lined with a belt of elders, burdocks, and briars, ascertain by weighing, the precise amount of vegetable growth yielded by these three plants on a square yard of land;—multiplying by 30 will give the weight on a square rod. Then let him make a fair estimate of the amount of land thus occupied along all the miles of his fence, and he may soon know how many tons of elder bushes, briars, and burdocks, his costly land grows in a year. It would of course be quite as well for him to have this growth in clover, timothy, or Indian corn—but before throwing the calculation aside, let him ask himself, if he would not feel somewhat indignant should his neighbor's cattle fall upon and devour an equal number of tons from his meadow or corn field? Now, cannot he contrive to get up a like amount of indignation against the weeds? The same kind of calculation may be applied on the same farm, to the Canada thistles, horse-thistles, Johnswort, pig-weeds, mulleins, mustard, and fox-tail grass, which grow in various degrees of denseness broadcast over the fields. We cannot but think that on some farms it would present rather startling results.

It would be an interesting inquiry, to look into the actual losses sustained through the whole country by the growth of weeds. How many tons on an average are grown by each of the million farmers of the United States? Three—five—or ten? If the former only, the aggregate crop would be enough to load a continued train of farm wagons three thousand miles long—or twenty thousand canal boats—or, more than ten times all the whale ships belonging to the country,—with this useless herbage. A single weed—the Red Root,—has been estimated to have occasioned greater loss in some counties than if every dwelling house had been consumed by fire. Is not the subject one worthy of some attention?

Now, there are two ways in which all this evil comes upon us. The first is by the increase of seeds—the second, the want of prompt destruction when once the evil has commenced. The increase by seeds, under favorable circumstances, almost exceeds belief. We have counted the grains on a single moderate sized plant of chess, and found over three thousand. An equal increase the second year would produce nine millions; the third year, twenty-seven thousand millions; the fourth—but we will let some of our young arithmetical readers carry out the reckoning for ten years, and see if there is not enough seed by that time to turn the whole wheat crop of the globe to chess. A full grown, adult pig-weed, will yield eight thousand seeds,—which may increase in a few years to countless myriads, just because, as Prof. Lindley says, the cultivator was unwilling to make "a single flexure of his vertebral column," in extracting the first young weed from the soil. There are certain weeds, troublesome and costly in the highest degree in some regions of country, which are entirely unknown in others—simply because no seed have ever been deposited there. Then again there are other localities which were once plentifully infested, which have been completely eradicated, and not a single representative left. We could name several farmers who have succeeded in driving from both soil and seed, the last vestige of that insidious intruder, chess; and several others who by vigilance and industry had exceedingly lessened the annual

weeding of red-root. Such examples are worthy of imitation; and at the present season, when weeds are about preparing to form their millions of germs for increase, we hope the subject may receive the special attention of cultivators.

Cultivation about Fruit Trees.

We have often urged the importance of clean and mellow cultivation for young fruit trees, to promote growth; and for older ones, to furnish fruit of fine quality. Young trees, in grass ground from necessity, should be widely spaded; but even this treatment is quite imperfect, and becomes nearly useless as they advance in size and throw out roots far beyond the reach of any ordinary spaded circle. We have just measured a few trees differentiy treated in this particular. Small peach trees, set out six years ago, and kept cultivated broadcast most of the time, have trunks a foot in circumference, two or three feet above the surface. Those in similar soil, but kept spaded in five feet circles, in grass, are only eight inches in circumference, although ten years old. Most of this growth was made in the first five years.

Peach trees three-fourths of an inch in diameter were set out on a gravelly soil, of only very moderate fertility; but they were kept cultivated by the plow and harrow, and no crop nor vegetable growth of any kind allowed within the broad strip of ground of which they occupied the center. Two and a half years from transplanting, that is, the third summer, several bore a peck or more each, and one bore three pecks.

We have often wondered why some planters were so extremely desirous to procure very large trees for transplanting, as those of medium size make the best growth, and often outstrip the others. But we have now solved the puzzle. They set them out on hard ground, in cramped holes; and then, unlike any farm crop, whether corn, potatoes, carrots, &c., leave them entirely to themselves, to contend with weeds, grass, crusty soil, and other difficulties, unassisted. They consequently make no growth at all, or, to use the provincial phrase, "none to speak on"—and hence in three years, the large trees are still the largest, and the smaller still the smallest, both remaining at their original stature.

Seven years ago, we set out a row of apple trees on a rather unpromising gravel soil. The holes were dug seven feet in diameter, and all but the central position, where the tree was to stand, filled with soil made rich by thoroughly raking-in manure. About one-third of a cubic yard of manure, or a little less, was applied to each hole. When the tree was set, only ordinary good soil was placed in contact with the roots. Nothing unusual appeared the first year. The second, the young fibres began to reach the rich bed of earth, and the rapidity of growth was surprising. The fifth year one tree bore a bushel, although they were only the size of a common carriage whip when transplanted. We have to day, (after seven summer's growth,) measured most of them, and find their circumference at two feet high, to vary from fourteen to eighteen inches. The soil has been kept cultivated, with but little crops near them. Their growth continues nearly undiminished.

Will not those who have neglected their trees, profit by these hints at the present time.

Dry and Rat-proof Cellars.

Frequent inquiries are made on this subject. Cellars plastered at the sides and on the bottom with hydraulic cement, will keep out the water without a drain, and will exclude rats, provided the work has been done in the best manner. Imperfectly executed, the water will leach in; and if the coat is too thin or too soft, rats will excavate beneath it, and then crack it off peice-meal. It is unnecessary to inform our readers that the very best material is to be used; but some are not enough aware of the importance of giving it sufficient thickness. On dry and hard gravel, it may do well to apply the mortar at once to the excavated face of earth; but usually it is much better to cover the cellar bottom with a paving of stones; and where rather inclined to dampness, with two or three successive layers, the last of which may be quite small, or even coarse gravel will do. The mortar, made rather thin, is then spread smoothly over. In a few months the whole will assume a flinty hardness, through which no rat, with all the cunning of a politician, can ever make his way. It will be as dry as a floor, and fruit, vegetables, and other articles may be placed directly upon it without fear of dampness. It will not very soon wear out nor decay.

Use of Yearling Bulls.

LUTHER TUCKER, ESQ.—Noticing in your May number, that a subscriber wishes information on the capacity of yearling bulls, I seize a leisure moment to lay before you my experience. About five years ago, I owned a full blooded Ayrshire yearling, and contrary to the opinions of our standard authors on cattle breeding, as also my own notions on the subject, I allowed him to be put to my cows, then numberng twelve; all of them proved to be with calf. The following season he was made use of with like success, and the third season he served 35 cows without a failure. He was then sold to a farmer in the eastern part of my county, who has him in his yard at this day, and a more noble specimen of a bull it would be difficult to "skare up."

Again, last year I used a yearling, (sired by the one above referred to,) for my cows, numbering twenty, and five of my neighbors; and the present spring has proven his success, with one exception, which was owing to some deficiency in the heifer, and no fault of his. He is now a thrifty looking animal, and in all probability "will keep his end up," as we farmers say, without a doubt.

In neither case have I given these animals any extra care, save stabling in winter to keep them from the cows, and a little grain per day, towards the latter part of their first winter. THOS. B. ARDEN. *Beverley, May* 20, '52.

CATCHING FLIES.—The Prairie Farmer tells how they catch flies in England. It is done by "fly-papers," and the process is called "fly torture," on account of the manner in which the insects have their feet fastened in the "*stocks*." The article used is rosin and sweet oil mixed, and spread over the surface of a newspaper, and then slightly sprinkled with sugar dust. The moment the fly puts down his foot he is fast. They are thus caught with great rapidity. The "torture" appears to consist in a want of liberty to go where they please.

Influence of Agricultural Pursuits on Health.

Essays have been written and published in regard to the best means for the preservation of the health of domestic animals, and of the various fruit trees and plants that the farmer cultivates, and great advantages have resulted therefrom; but articles in regard to the health of the farmer himself, and of his family, and those in his employ, seldom find place in the columns of our agricultural periodicals.

It is not to be supposed, that this want of attention to the important subject of health, of the human animal, is owing in any degree to want of interest, or want of thought on the subject, on the part of the conductors of, or contributors to the periodicals devoted to the interests of those engaged in these pursuits, but rather it is owing to the fact that *physicians* seldom write on such subjects, except for journals specially devoted to the interests of their profession.

If a farmer cannot reasonably expect either pleasure or profit from unhealthy domestic animals, much less can ne expect that disease in his own person, or in members of his household, can be conducive to his or their happiness—and it may be well to ask the reader's attention for a few moments to this subject.

By far the largest number of the inhabitants of the rural districts, are, in a greater or less degree, engaged in agricultural pursuits, especially the *male* portion, and those who are not thus employed, are liable to become affected with the *same* causes that produce a *direct* effect upon the health or the constitutions of those who are farmers by occupation. Especially is this true of the *females* of the farmer's own family.

Farm laborers are greatly exposed to the vicissitudes of the weather—more so, probably, than any other class of people who reside in the country, except physicians. They are under the necessity of taking care of their cattle, their fences, and their crops, without regard to the state of the weather, and are therefore peculiarly liable to suffer from colds, coughs, rheumatism, fever, &c. They are likewise liable to exhaust their system by over exertion, either from too severe labor for a few hours, or from that which is too long continued, as in the long days and severe exertion of the haying and harvesting seasons, when many become almost completely exhausted.

In the matter of *food*, every intelligent farmer knows that on it the animal depends for all his vital powers, and is therefore careful to supply the horse or the ox that works, food suitable in quality and quantity to meet the demands of the system, but in regard to *himself* and "the rest of mankind," he betrays a degree of thoughtlessness that is truly wonderful. The food of agriculturists, generally, is composed of too great a proportion of fat, and salted meats, and that too very improperly cooked.

It is supposed that little culinary skill is required to cook a piece of salt beef or pork, or to boil vegetables, or bake beans, and as the severe labor of the farmer produces a vigorous appetite, he is apt to content himself with a small variety of food, and that very improperly prepared.

It has been said that "bread is the staff of life," but if what often goes by that name, and is a compound of sour milk, or putrifying yeast and saleratus mixed with *second* quality flour, and imperfectly baked, is the staff referred to, it would be better to walk to the grave without the aid of this staff. But few people ever enjoyed the luxury of *good* bread, and until they know what that is, they will continue to partake of too large a portion of animal food. As little attention is usually paid to supplying the table of the farmer with a proper amount of fruits and vegetables, as to the farinaceous articles of diet—and either because he is in haste to resume his labor, or because there is no pleasure in retaining *such* food in his mouth, the farmer is accustomed to force it into his stomach without the requisite preparation, and almost with the speed with which an ostrich would bolt a red hot stone.

In regard to the location of their dwellings and outbuildings, the majority of farmers display as little correct knowledge and taste, as in the culinary department. If it be more convenient to have the pig-pen, or the farm-yard immediately adjoining the parlor or the cook-room, so that all may enjoy the perfume that arises therefrom—or to allow all the wash and the slops of the kitchen to accumulate and ferment near the windows of the sleeping rooms, there, while surrounded with a rank growth of poisonous and decaying vegetables, to distil the very essence of disease and death; this, and the aroma from the compost heap, is allowed to assail the nostrils of all, until the schneiderian membrane is as little annoyed by the stench, as are the palatal nerves of the tobacco chewer by his regiment of "old soldiers."

With all these peculiar sources of disease, and many others of scarcely less magnitude, that press with greater force upon the vital powers of the farmer, than upon those who are engaged in other pursuits, it would but be natural to suppose those who are engaged in agriculture, must be more liable to sickness and death than other members of the same community; but the very opposite fact is now well established.

During the twenty months preceding the first of January 1850, there were reported, in the state of Massachusetts, the death of 4,974 *farmers*, and these died at the average age of 63.83 years. Of those styled *laborers*, 2,283 were reported to have died in that state during the same period of time. These were, in good part, men who were engaged on farms, as house servants, and in any chance employ where they could earn a day's wages, and doubtless they had less healthy habitations and food than those for whom they labored. They attained to the average age of 45.39 years, or nearly 18¼ years less than the average for farmers.

In the report for the year 1850, we find recorded the deaths of 886 agriculturists, who had attained to the average age of 65.13 years, or about 1¼ more than those reported the previous year. In this report are also recorded the deaths of 707 *laborers*, at an average age of 44.14 years, or over a year *less* than that attained by the same class, as recorded in the previous report. As each class were equally exposed to all the *general* causes of disease, these reports prove that the *comparative* relative conditions of these two classes of people, had un-

dergone quite a change in the short time of two and a half years.

As a contrast between the salubrity of different occupations, or the influence occupation has upon the life of those engaged therein, it may be well to present other results gathered from the above named reports. During the latter period—or for the year 1850, there were reported the deaths of 263 *shoemakers*, whose lives had averaged only 44.37 years; and 26 *tailors*, who averaged only 41.33 years, showing that those who follow these occupations, although they labor under shelter, unexposed to the inclemencies of the weather, are nevertheless obnoxious to *other* causes which tend to reduce their lives to over 20 *years less* than that attained, on the average, by agriculturists.

These comparisons might be extended to *all* classes of occupations, and without *any* exception, they would be found to produce results favorable to the longevity of those engaged in agriculture.

To present the above in a different form, it may be proper to consider that individuals do not usually enter upon the active duties of any occupation, so as to be entitled to be *classed* with those who follow that for a livelihood, before they arrive at 18 years of age, and we find that the farmers work *as farmers* after this period, 47 years, while shoemakers and tailors, do not on an average, survive beyond the time of commencing their their occupations, but about 25 years.

At the commencement of this paper, it was stated that there are many powerful influences in operation, that tend to *abridge* the lives of those engaged in agricultural pursuits; yet an examination of the tables of mortality shows this class of people to be comparatively *long-lived*, and it is but proper to learn, if possible, *what causes* there are which counterbalance those enumerated as prejudicial to the health and life of farmers, and which insure them, on an average, a life for labor and for enjoyment, of nearly double the number of years that are reasonably to be expected by those of the sedentary habits of the tailor or the shoemaker.

Among the most prominent causes of the great comparative longevity of agriculturists, no doubt we should find the fact that their labor is performed where they can breathe the atmosphere in its purity, while they are enjoying the vivifying influence of the direct rays of the sun. With a pure atmosphere for the lungs, during labor, where the inspirations are deepest and most frequent, and with the blessed sunshine to warm the whole frame work, and all the fluids of the system, a man becomes prepared to resist the ordinary injurious impressions that otherwise would produce a very deleterious effect upon him.

The farmer's exercise is of that kind which gives play to *all* his *muscles*, and not to one set alone, as is the case in many other occupations—therefore he is less liable to accumulations of effete matter lodged in some part of the system, that only need a small amount of foreign poison to produce a ferment and consequent fever.

The farmer's mind is free from the anxiety, and the turmoil and trouble attendant upon trade. He is not obliged, like many mechanics, to dispose of the product of his labor as soon as produced, to procure bread for himself and family, for his food is mainly produced upon his own land, and not subject to the changes of the money market; neither is he subject to those pangs of *conscience* which must at times harass those whose "business it is to cheat each other for a living." Consequently his appetite and digestion are good, and his sleep undisturbed and refreshing.

There is yet another cause, of no small potency, in producing the farmer's great exemption from disease and death. It is the fact, that almost all who follow agricultural pursuits for a livelihood, are the offspring of parents of the same class, and their parents had been too busily occupied during their childhood to spend time in dosing them with *tincture of rhubarb, paragoric, Godfrey's cordial, hot drops, soothing syrup, &c. &c.*, after they had crammed their stomachs with cake and confectionary, or half decayed fruit, which forms so large a part of the aliment and *ailment* of the children of the cities. Being exempt from these pestiferous influences, their systems have become more perfectly developed, and consequently they are able to endure, without material injury, fatigue and exposure, that would destroy persons of less hardy constitutions; and if they will but avoid the sources of injury mentioned in the commencement of this article, they will insure to themselves a still longer life of health and happiness. C. H. CLEAVELAND, M. D.
Waterbury, Vt.

Vermont Horses.

EDS. CULTIVATOR—The horses of Vermont have for many years, stood high in market, and deservedly so, I think. There has, in days past, been some good *blood* in the state, sufficient for a foundation to build upon. But care enough has not been taken among horse breeders, to preserve the blood of their stock animals in such a degree of purity as to warrant any confidence in the character of their progeny. Yet some good and valuable animals have been and still are produced, partly from *lucky* crossing, and partly from the usual manner of treating stallions throughout the state. As a general thing, stallions in Vermont, are working horses during the winter. They are not kept high except during the season for covering. Their colts, therefore, show an amount of muscle, and a docility of temper, actually surprising in some instances. Mares usually are worked enough, often too much, to give their muscular system its due and requisite tone. But in many parts of the country, stallions are suffered to stand in the stable, week after week, and month after month, after their season is over, without any exercise at all, or at best with but very little.

Without particularizing too much, or going into an analysis of the various *points* and proportions of the horse, I will say, in general terms, that the muscular and vital system are those to which the greatest attention should be paid. The muscles of a horse are what we use, and they are dependant on the vital organs for their growth and power of endurance. The art of reproducing, is a *vital* process. But so closely are the muscular and vital systems connected, so mutually dependant are they, that one cannot, for any length of time, be stimulated or exercised to excess, without injury to the other. Want of exercise is felt first in the muscles

—they diminish in size and firmness, and if much or high food is allowed, fat is started instead of muscle—or the vital organs are unable to resist the accumulation of poorly digested food, and weakness, prostration and disease ensue. During the season of covering, the vital system, on which is then the greatest drain, should be stimulated, and the exercise of the stallion should be much reduced. A stallion kept at hard work, and at the same time allowed to cover, is not sure, and what few colts he may get are weak and feeble, showing great deficiency in the size and power of their vital organs, and as a matter of course deficient in muscular energy.

The reason why so many good horses are generally sent to market from Vermont, is found in the fact that stallions are treated as common farm horses, except during the season for mares. Their muscular system is fully developed by work, not mere *exercise*, but hard work, during the fall and winter, and the spring finds them robust, hearty, and full of muscular power and vital energy.

In "Mason's Farrier and Stud Book," edited by Skinner, is a short essay "on the condition of a stallion"—worth, *practically*, more than all the rest of the work. It concludes in these words—"Trainers find their endeavors to produce the highest state of strength in an animal, greatly impeded by any excitement of the sexual appetite. It is then the more necessary to keep the horse in a state of training throughout the year, impressing most forcibly, a tone of health and strength upon his system, at a time when his nerves are liable to the least distraction—never allowing such excess of service, or of the excitement of sexual appetite, as to induce a disturbance of spirit or temper, or a relapse from the most thoroughly strong, healthy, and regular tone of the system."

Such has been the course generally pursued with "Morgan" stallions; their docility and tractableness, caused by constant use, rendering them fit for ordinary labor, and more pleasant in the harness than most stallions. The *blood* of the Morgans at this time, amounts to but little; strictly speaking, they are not entitled to a distinct family name. For from Mexico to Maine, I can show you "Morgans" in form, size, color, and action, whose progenitors never saw Vermont; and if you will pay a visit with me, some day, to Queen Victoria's stables, I will show you there a stallion, *thorough-bred*, yet a "Morgan, every inch of him."

Some persons are inclined to believe that everything of the horse kind in Vermont, of any value, is "Morgan." It is true that the Morgan name has great weight in some quarters, and is, I am ready to admit, entitled to a certain quantum of respect. But the old Morgan is not the only stone in the foundation. Within the past forty or fifty years, there have stood in Vermont, among other stock horses, a colt of imported "Magnum Bonum," a get of "Cock of the Rock," a get of "Hamiltonian," one of "Post Boy's" colts, one got by "American Eclipse," "Long's Henry," now living, and owned in the state, and several descendants of "Messenger," and other thorough-bred horses.

These all have been, more or less, subjected to the same treatment, and have left stock worthy of their illustrious names.

It is from a promiscuous mingling of such strains of blood, amid the pure waters, the sweet pastures, and the salubrious atmosphere of Vermont, that she has been enabled to furnish so many good, (not to say "Morgan,") horses. J. *Stowe, Vt., May* 10, 1852.

Utility and Importance of Agricultural Surveys.

By the way of furnishing a useful variety of practical information to the patrons of the Cultivator, I propose occasionally, to prepare a few brief sketckes of portions of the country through which I have visited within the past four years, which will tend more fully to bring into notice the natural and artificial resources of those sections I may from time to time describe. The agricultural press has already done much in effecting this object, but a wide field is yet open for those who feel inclined to contribute useful facts for their fellow farmers, as a means of guiding them correctly in ther onward course of improvement. As I have taken a permanent stand at a point convenient to this city, as a matter of course, most of my descriptions will be confined to Southern and Eastern Iowa, Western Illinois, and Northern Missouri, as my recent, and probably future journeyings, have been, and will be, through those portions of country; but to show that I have not fully forgotten Ohio, I will confine my observations for a few moments, to a brief description of the Sciota Valley.

THE SCIOTA VALLEY presents some important agricultural features and developments, that are worthy of being understood by every votary of the plow; and I shall endeavor to give a bird's-eye view of some of the prominent features of this interesting region, of what may in fairness be styled the first agricultural state in the Union. The ancient metropolis, Chilicothe, may be considered about in the center of the valley, taking into view the wide intervales that stretch along the river from its mouth, at Portsmouth, where it enters the Ohio, to the small branches at its source. The country lying between the Sciota and the Little Miami, some 40 miles in width, and nearly 150 in length, was originally a military tract, given to the patriots of Virginia, who aided in the achievement of the American Independence.

This extensive tract of fertile lands, being parcelled out in large bodies, has given rise to a system of agriculture somewhat peculiar to itself, and which strikingly contrasts with that of any other portion of the state. The descendants of "the first families in Virginia," upon their initiatory movements in pioneering a region of country distinguished for the number, power and industry, of the aboriginal tribes, found much to contend with; and after driving the red man of the forest from his almost boundless plantations of maize, established a system of agricultural operations that highly comport with the vastness and grandeur of their domain. The intelligence and magnanimity of the Sciota farmers, are among the most striking features that distinguish them from those who occupy some other portions of the west; and farming, instead of being done in the snug, quiet way that is characteristic of the Yankee farmer, in the north-eastern range of counties, is prosecuted upon a large scale, which can only be comprehended by giving a specific, detailed description. In no portion of this continent can an equal

number of independent gentlemen farmers be found, in proportion to the area, as are interspersed throughout the Sciota Valley, and the intelligence and enterprise that pervade the masses of land owners, will secure the soil from deteriorating, as unfortunately has been the case in the best portions of Virginia.

The great staples of the Valley are corn, pork, and beef. The corn is mainly grown with a view of feeding it to beef cattle, and hogs, on the ground; and the soil, instead of deteriorating in fertility, improves in productive powers, so that land that has grown 40 consecutive crops, will now produce from 80 to 100 bushels per acre, with the labor that would be required to produce 25 bushels per acre in northern New-York. The corn-fields are large, ranging from 100 to 500 acres each; and as far as the eye can stretch in the distance, one continuous line of corn fields are presented to view, which contributes a richness to the landscape, and a permanent source of wealth to the land owners, that are rarely met with. The only labor given the crop is a plowing, followed by planting, and two, and at the most three plowings, with a one horse shovel plow. One man, with the aid of a horse, will properly tend 40 acres of corn, where the land is not overrun with weeds; and the crop on the ground, when converted into beef and pork, is worth from 20 to 30 cents per bushel; and as it costs only some 10 cents per bushel to produce it, and the land is improved for future croppings, at the rate of some three dollars per acre, the business of corn growing, and fattening beef and pork, are among the safest and most profitable landed operations.

Farming in the Sciota country is practiced largely upon the scale that prevails in the south, in growing tobacco, cotton, and sugar cane. One man, for instance, will feed 500 hogs, on corn grown by himself, and during the season for purchasing store hogs, his agent will buy in two or three times the quantity he can feed for market from his own crop—and to make up this deficiency, he buys of his neigbors their entire crop. Thus the large farmer, and those of small capital, each perform different departments—the one with his ample means, buys the store hogs, young cattle, and horses, and even the crops of corn on the ground, for which he pays a fair price to the latter, and both parties seemingly make good profits, and are satisfied with the gains afforded by their business. The grower of corn is contented if he can get from 12 to 15 dollars per acre for his corn, and the feeder takes pretty good care to purchase his stock so that they net him in the New York and Philadelphia markets, a handsome profit. Besides what is fed for home consumption, there are annually sent from this Valley between 30 and 40,000 head of five and six year old fat bullocks, worth from 50 to 70 dollars each. The cattle, are mainly grade Durhams, and possess fattening properties which in a peculiar degree adapt them to the climate of the country, and the requirements of the stock feeders. It is a striking fact, that the corn, after being eaten by the cattle, contains fattening properties which impart to it highly valuable qualities for the production of pork, and hence, that no portion of the crop should be lost, the experienced feeder parcels out a full grown store hog to each bullock; and frequently, fields containing 500 fat bullocks, and an equal number of hogs, along the Valley and tributaries, are seen, which to an admirer of good and profitable husbandry, is among the richest sights that can be imagined. This is especially so, from the fact that the stock, both cattle and hogs, almost uniformly strongly portray evidences of good breeding, and thorough skill in rearing and feeding. The largest operator in feeding swine, with which we have any knowledge, received from a pork packing establishment last fall, *fourteen thousand dollars*, for his annual crop of hogs; and the largest feeders of cattle, drive over the mountains annually, some 800 head of fat bullocks!

On the Valley, towards its mouth, the system seems changed, and instead of hogs and cattle, corn cribs of ponderous proportions, are everywhere presented to view, and the corn being shipped to Cincinnati and other markets, commands, probably, on the whole, better prices than if fed on the ground.

The cultivation of broom corn is more extensively prosecuted on this Vally, than in any other portion of the world. From 100 to 800 acres, are grown by individual farmers, and the operation is decidedly a paying one, affording, as it does, a profit of from 15 to 30 dollars per acre, over and above rent of land, and the entire labor of managing the crop. The seed is sown pretty thickly, in drills four feet apart, during the month of May, and the crop requires about the same attention necessary for Indian corn. The seed is not a source of much profit, as at the best, stock of no kind relish it, and hence the only portion of the crop suited for market, or from which any profit can be derived, is the tops for brooms, which is thoroughly cleaned and prepared for market, and put up in bales, and shipped to New-York and Boston, where it is manufactured into brooms.

This notice of the far-famed Sciota might have been profitably extended, but sufficient has been penned to afford the reader some idea of the magnificence of its farming operations. W. G. EDMUNDSON. *Keokuk, Iowa*

Habits of Bees.

LUTHER TUCKER—I have noticed the theory, from Huber down to Miner, concerning the queen bee, that when they came together they were likely to be both killed. This does not agree with my observations. I several times have had both queens lost, and the bees, the first year, do nearly as well as though they had one, but die the next winter, or run out the next summer, and not one brood cell is to be found. I rather doubt whether the old queen always leads the first swarm, for I have had the queen unable to fly the first time of coming out; on her being put back, they came out regularly the second day after. Also the cause of swarming—my bees swarm as well, or as many times, with the hive about one-third, one-half, or two-thirds full, as when full. I consider it immaterial, if they have sufficient brood comb in the hive, whether it is full or not—although I think that swarms differ in the same situation—one hive will swarm when another would not. I don't know but you will think me rather credulous, but I have been reading different authors and making observations, and am led to think that bees work differently in different places, because my observations do not agree with others in several respects. HENRY HITCHCOCK. *Martinsburgh, May* 12, 1852.

On Raising Horses—No. 3.

My last contained some hints concerning the selection of mares. I now propose to give your readers a few ideas concerning the proper selection of stallions.

This will depend upon the kind of horses we intend to breed. Unquestionably the most profitable, are such as will command high prices in our city markets, as carriage or road horses. Indeed, the remark of a very popular English author, a gentleman of education, and the widest experience, is to this point, more pertinent than anything I can write. He says—"The more we can get the attributes of the race horse, combined with the strength we want, the better horse we shall get for any purpose." We say, then, get the strongest, most symmetrical, useful looking thorough-bred stallion, that can be found—for from such have descended all the families that are now famous in our country, viz: the Messengers, Eclipses, Highlanders, Morgans, Magnum Bonums, Bluchers, Bussoras, Consuls, &c., &c.

It is quite time that we turned what mares we have left, that are descended from these famous sires, back to the fountain-head. Unless we do, we shall have occasion to complain of more lamentable degeneration than we have hitherto known. But we must hear our author, "Cecil," on these topics; not as to the propriety of using thorough-bred stallions—for this he takes for granted—not recognizing any other, except for the breeding of draught horses. He says—"Whether for racing, or for other purposes, a stallion should possess a faultless pedigree, and his good looks should bear the stamp of "title" in his ancestors and in himself; power and action are qualifications that should never be overlooked."

And again, in another connection, he remarks upon the proper selection of a stallion, where the breeding of hunters is the object aimed at. The hunter is a horse not known among us as such, but our first rate market horses are very similar to him in form and appearance.

"In breeding hunters and carriage horses, the selection of stallions may be less important than for the turf; at all events, different qualities are required. Symmetry is of far greater consequence than blood—good sound legs and feet, than speed—lofty action more to be coveted than length of stride; color and temper also come under the category of desiderata. When the fashion prevailed of running half-bred horses, it was discovered that those were most superior that had the stain on the mare's side—in other words, that the sire should be thorough-bred—the same principle holds good with hunters and carriage horses."

And I may add that it is my opinion, founded on reflection and observation, that the same will also hold for roadsters and trotters. I have no doubt that the future improvement of the trotting horses of our country, both as it respects speed, bottom, and elegance of appearance, is to come from a judicious cross with thorough-bred stallions.

Note what a wonder was produced by breeding the trotting mare Fanny Pullen, to the imported thorough-bred horse Trustee—viz. the trotting horse of the same name, that performed the greatest feat ever known. As to the adaptation of a stallion to the mare we intend to breed from, our author remarks:

"Many breeders are of opinion that the principle to be adopted, in order to obtain a first rate colt, is that of sending a mare characterised by stoutness, to a horse famed for speed: whether it can be laid down as an established rule, is, perhaps, questionable; but it certainly is desirable to breed from mares enjoying stout and healthy constitutions. If the relative symmetry of the sire and dam were more generally observed, it would, no doubt, be attended with success. It has already been suggested, that the most judicious course to pursue is that of seeking a remedy in the stallion, for the defects that exist in the female. It is again necessary to refer to that subject, as one which must be qualified in its extent, for all extremes are bad. I am not aware of a single example of a very lengthy mare producing a good foal by a very short, compact horse. The defects which may be obviated in one sex, by the converse in the other, are legs and feet, shoulders, backs, loins and hocks, but a great disparity of proportion cannot reasonably be expected as conducive to symmetry in the progeny.

The importance of this subject must excuse my quoting still further, from another page.

"The choice of a stallion for each mare, instead of being left to chance, requires to be guided by the greatest experience, judgment, and study. With the hope of correcting in the progeny whatever defects or imperfections prevail in the mare, the most judicious course to pursue, is obviously that of seeking the remedy in a stallion most perfect in those points in which the female is defective. There is, however, one circumstance connected with this practice, which demands especial notice in these pages. It is that of endeavoring to compensate, by the great size of the horse, the deficiency in that respect, in the mare; one of the greatest fallacies, both in theory and practice, that can possibly be entertained. When dealing with the handi-work of nature, man must be content to obtain the objects of his wishes or improvements, by degrees; a limit is opposed to the progress of human ambition, and the man who, in the hope of ascending to the summit on which his ambitious dream of perfection hovers, by one gigantic step, most frequently finds himself hurled to an immeasurable distance from the attainment of his wishes; whereas, had he been contented to woo nature more diffidently, he might in due time have attained his object.

It is generally expected, and usually realised, that the offspring partakes some of the features of the sire, and some of the dam; therefore, if a very large horse be put to a small mare, in the expectation of their producing a large foal, and that foal takes after its sire in the forequarters, and its dam in the hinder ones, the exactness of anatomical proportions and symmetry will be lost, and the offspring will be comparatively worthless."

I will detain you with but one other extract, which appears to me to be worthy of notice and reflection.

"An old and valued friend, a few years since "gathered to his fathers," who was an extensive breeder, and moreover a very keen observer, was wont to be very earnest in his declaration, that mares should never be sent but to the same stallion, during the whole course of their career in the stud, unless it could not possibly be avoided. I certainly am not prepared with any argument to oppose his opinion, although it was undoubtedly founded on very subtle notions of the works of nature. He maintained that a mare having bred foals by different stallions, entertained a greater predilection for one partner than another, and that on subsequent occasions, having reminiscences of past events, the produce was affected thereby."

I will now conclude this article by reiterating the principle laid down in the beginning, viz: that none but thorough-bred stallions should be used, unless we mean to breed mere draught horses. And if these, none should be used, except such as have good size, plenty of bone, fine symmetry; compact, hardy looking horses, with as much motion and style as possible. I am aware these are scarce. I know of none in the central part of the state that will answer the description, excepting Consternation, Pryor, and Horn-blower. The latter has been recently

purchased by JOHN MUIR, Senr., & Co., of East Hamilton, Madison Co., and is truly a fine horse. Those who are accessible to him, will one day regret it, if they do not avail themselves of his services. I have seen many of his colts that promise to be first class market horses, having a look of speed, and plenty of size and style. I wish our state was filled with such horses. Respectfully, B. *Syracuse, May* 12, 1852.

Foundation of the French Merinos.

[*Translated from the French for the Cultivator.*]

My father was born a farmer, and busied himself in his youth in breeding sheep.

In 1786 the Queen of Spain made a present to the King of France, of a flock of Merino ewes and rams, selected from the best blood in that country. This flock were equally divided, and one half were placed at Rambouillet, where they have always remained; the other half were presented by the King to a proprietor, M. de Chaurier, who placed them on his farm at Croissy, four leagues from Paris. My father was 27 years of age at this date; he visited the flock soon after its arrival, and each succeeding year, to satisfy himself in regard to the acclimation of the flock, and to compare the produce of wool and flesh with the native breeds. After satisfying himself that our climate agreed with this fine wooled race, and that they offered a greater inducement and advantage from the extra product of wool, as well as their flesh, compared with the then existing flocks of France, he purchased a buck and eight ewes at Croissy, in 1800, at the first sale. The ram was four years old, weighed 124 pounds,* and carried twelve pounds of wool; the ewes averaged nine pounds in its pure, unwashed state. He bought yearly from two to four sheep, until 1810. In 1811, 50 ewes and five ram lambs. In 1818 the whole flock at Croissy were sold, 55 of the ewes to my father, who paid on average from 120 to 300 francs. At Croissy the pasturage and hay was of a better quality, and more suitable for sheep than at Rambouillet. The sheep were superior, and for this reason, my father made all of his purchases at Croissy.

In 1821, he bought one ram at Rambouillet. Notwithstanding these two flocks were of the same family, he obtained a great advantage in alliance of blood, as there had been a complete separation for 35 years; up to 1827 he bought five rams from this branch; at this date, ceded to me his flock, which numbered 209 ewes of three years and upwards, and 176 ewes one and two years old, and 90 yearling rams. In 1832 I bought 55 ewes at the public sale at Rambouillet, and since then have bought a few ewes and two rams to mix the blood with my flock, always choosing my reproductors among those which carried the greatest quantity of wool of the best quality. By this means I have increased the fleece upon my whole flock. The ewes, many of them, yielding 18 pounds,† and the rams 24 pounds. Our common practice has been to use no ram till well matured, say two years old, and not allow the ewes to drop any lambs till three years old. We have thus improved the form and size of our flock, which inherit a stronger constitution.

* 138 pounds English.
† 20 and 27 pounds English.

No American gentleman visited us previous to the 11th May, 1846. We then had the pleasure of seeing Mr. J. A. Taintor, of Conn., to whom I sold two rams and seven ewes. Since then I have yearly made shipments of a few bucks and ewes to Mr. Taintor, who has made my sheep prosper in the States as they do in France. I have also had the satisfaction of receiving a visit from Mr. Isaac de Forrest of New-York, Mr. Sanford of Orwall, and Mr. S. W. Jewett of Middlebury, Vermont. The latter purchased of me, in 1851, 82 ewes and 18 bucks. In 1852, I sold him 94 ewes, and to deliver in 1853, I have sold him 90 ewes. I have also had a visit from Mr. Howard and Mr. Parker of Ohio, to whom I was not able to sell any sheep this year or next, to their great regret.

From the various essays made by my father to ameliorate the Merino race, and those which I have continued to effect on the same principles, we arrived at this conclusion, that in order to improve the breed it was necessary to let them graze on good land, preferring dry to wet, and renew the blood of his flock every five or six years. If a longer time expires before you renew the blood, you can mantain the flock in the same quality, but you cannot improve it.

Before the ewes are fleeced, I assort and separate into as many lots as I have rams, and avoid using rams with any defect, to ewes of the same defect. It is with these means, put in good practice for many generations, that we have obtained the amelioration of our flock.

It was only in 1844 that I decided upon letting my flock compete with others for the prize. Upon this occasion, the Agricultural Assembly of Paris, appointed a commission to visit the best flocks of the country. After the commissioners made their report, the Minister of Agriculture awarded me the great medal of gold.

The agricultnral exhibition for 1845 took place at Grignon. I sent there 350 ewes and four bucks. The first prize was given me and my father, then 86 years old, who received it at the hands of the Duke of Nemours, conducted there by his two sons.

The great general exhibition which took place at Versailles in 1851, I and my colleague, Monsieur Cugnot, sent there, each of us, three rams; the first prize was granted to us. VICTOR GILBERT. *Wideville, Commune de Crespieres Seine et Oire, April* 7, 1852.

Fancy and Common Poultry.

MESSRS. EDITORS—You state in the last Cultivator, that you cannot at present answer inquiries concerning fancy poultry.

The subject is one in which I feel a deep a deep interest. As objects of fancy or utility, this neglected class of our domestic animals, taken in the aggregate, has a just claim to the attention of every agriculturist who is either a man of science, or a gentleman of taste.

I have had at different times, on my farm, several varieties, both of native and imported fowls; have introduced others into my neighborhood, and by reading, correspondence, and travelling, believe I am acquainted with all the best fowls in our state. My success in their cultivation has been beyond my expectations. With proper care, they multiply with wonderful rapidity. Besides

the gratification of my taste, and profitable occupation of leisure moments, I sold last year, chickens enough to clear thirty dollars on each of all the hens I kept.

I have sometimes exhibited poultry at the fairs, and never failed of taking the first premiums. I make this statement not for the gratification of personal vanity, but for the encouragement of others, and to recommend poultry culture to the poor as well as the rich, as an *amusement*, innocent and pleasing—as an *occupation* profitable to the individual, and at the same time, conducive to the public welfare. But my object in writing, was to say to your readers, who feel an interest in this subject, that they may have the advantage of my experience, if they wish it, on the following subjects. The selection of breeds native or foreign, for ornament or utility. The fixtures necessary. The manner of keeping, feeding, &c., and how to make them most profitable to the owner. I will also inform them where the kind they wish may be procured. Any assistance I may be able to render on these subjects will be entirely gratuitous, and the only personal advantage desired or expected by myself, will be the pleasure of becoming acquainted with others of feelings and pursuits congenial to my own. JOHN T. ANDREW.
West Cornwall, Ct., May 17, 1852.

Letters from the Sandwich Islands—No. 2.

The stock of the Hawaiian Islands, consists of horses, cattle, sheep, goats, swine, and dogs. Horses are very numerous, but generally are a small and poor race—little care having been taken to improve them. There are at present, however, some individuals who are interesting themselves in improvement of horses, and fine animals have been imported from the coast of South America, Oregon, and New-South Wales. Except in a few instances, they are kept on fresh grass, or what they can find in ranging the country. Horses are chiefly used here for the saddle, as the roads in the country are poor, and do not admit of extensive travelling with carts or waggons. At Honolulu, however, horses are now being considerably used for the purposes of pleasure driving, and for conveying the goods of the business community. The best horses are valued at prices varying from $75 to $150. Some have been sold for more than $500.

The cattle of the Islands are a mixture of an English and a South American breed. The first introduced were by VANCOUVER; these multiplying, and being allowed to range the country unrestricted, have become wild, excepting such as have been herded, and kept for dairy purposes. The cattle now are generally owned by a few wealthy proprietors, and are the source of a large income—beef having sold in the Honolulu market during the last year, at 12½ cents per lb. In order that the property of respective owners may be known, the cattle are all branded, and also horses—with various initials and devices, a register of which is kept at the office of the Governor of each Island. Many men are employed to look after the herds—to lasso and brand them when necessary, and to drive them to market. The Hawaiians are very expert with the lasso, and are fine horsemen. Their chief fault is their abuse of both horses and cattle. Seated in a Spanish saddle, a pair of Spanish spurs on their heels, with rowels from three to five inches long, they are perfectly reckless of danger, and frequently ruin their beasts. In certain sections of the Islands, which are remote and unfrequented, the cattle are dangerous, and will attack horses and men; but as they are of more value than formerly, exertions are being made to tame them by herding. Oxen are much used for the purposes of draft; they are, however, miserably trained, and in many cases are kept constantly in the yoke. They are guided by a rope attached to their horns or nostrils. Being driven by the Islanders, whose ideas are not enlightened on the subject, the oxen are generally vicious. In attaching them to a cart, the native fears to enter between the oxen to raise the tongue, as from the treatment they receive, it is more than probable that the fear of abuse, or a desire of revenge, will cause them to use their hoofs. The cart tongue is raised by the weight of persons at the extremity of the cart, or else supported by a prop; the oxen are backed to their position, the ring adjusted, and the pin entered by a rope between the horns. There are some exceptions to their general bad training; where experienced foreigners are employed on farms, or plantations, there are some well trained pairs. In breaking steers, the natives, after having selected the mates, lasso and cast them to the ground—then drawing them together, they are yoked and permitted to rise; after being attached to a log of wood, they are allowed to run until fatigued; it is then easy to approach them; and if they are constantly obliged to draw, their training is soon completed.

Cows are as improperly managed as the oxen. If not very docile, the cow is lassoed, and tied to a post—her hind legs are bound together, and her calf is let out from an adjoining pen to share with the milker, that she may give down her milk. So impressed are the Hawaiians with the idea of a calf being necessary to cause the cow to give down her milk, that I am not aware of any who pursue a different course.

The cows are not a select milking breed, and only in a few instances, do they give more than eight or ten quarts per day. The calves are permitted to run with the cows during the day, and are separated at night. As a general thing, they are milked but once each day. A reform is, however, being made in the management of cows, as dairying is one of the most profitable branches connected with agriculture. Butter is in great demand, at 50 and 62 cents per lb. Efforts are being made to introduce a better breed of cows, and orders have been sent to Oregon for a number. A great difficulty in the way of improving stock here, is the absence of fences over the country, and the scarcity of material in many sections wherewith to construct them. The idea of wire fences is now considered by planters and farmers. In some situations the prickly pear has been successfully tried as a hedge; but it requires some years to effectually enclose and secure a field.

The swine here are of many breeds, being constantly brought by vessels from different countries. English, French, American, and Chinese breeds, are here. Except in few instances, little care is taken of them—they run at large, and seek their own food. Some that are fed attain a large size, and weigh from five to six hundred pounds; but in general they are small, and weigh

from 150 to 250 pounds. The demand for pork is very considerable at Honolulu, and brings 12½ cents per lb. Lard is scarce, and sells at 30 or 40 cents per lb.

Sheep are raised in considerable numbers, chiefly for the market; they are rarely if ever sheared. Their wool is coarse, and not of much value.

Goats are found in every district—many are wild, and are game for the sportsmen; others are domesticated; but little use is made of them—the natives being the chief consumers of their flesh.

There seems to be a singular attachment among the natives for dogs—and if the poverty of a people is indicated, as some say, by the number of this species of quadruped, the Hawaiians may surely be classed as poor; for one would judge that there were four to a family throughout the kingdom. It is known that dog's flesh was a delicacy to the palates of these people in former times, and unless I am much in error—a baked dog is not an unacceptable dish yet.

The poultry here are hens, turkies, and ducks, and are a source of profit to those who are concerned in their management, eggs selling at 50 cents per dozen, hens at 50 or 62½ cents apiece, and turkeys from $1 to $2.

The birds of the islands are of few varieties, and not very numerous—they are found chiefly among the mountains. Some are of fine plumage, and formerly were more highly valued than at present, as their feathers were worn as an ornament. In the neighborhood of the sea-shore, a variety of plover exists; but as the rage for sporting is here, the birds do not increase. Sparrows and robins would be of great utility in destroying the worms which so molest the crops. It is hoped that they will be introduced soon from Oregon.

The fruits here are the banana, bread fruit, tamarind, guava, oranges, limes, citrons, grapes, figs, and other varieties introduced from South America and elsewhere. Oranges and limes do not thrive in every locality—where the trade-wind blows fresh, it seems to have a blighting influence on the growth of these fruits; in valleys which are protected and on the leeward of some of the islands they thrive well. Figs can be produced in any quantity and of the finest quality, and will yet become an article of exportation when there may be a market for them. A few peaches have been produced; but not of very fine quality. At a sufficient elevation among the mountains, it is probable that all the fruits of the temperate zone could be cultivated successfully. In time as the country becomes more settled, indigo, cotton, tobacco, and varieties of spice, may be objects of attention. The indigo plant grows wild in profusion, and were its manufacture undertaken by experienced persons, it might be a lucrative business. The tobacco plant thrives well, and it is said to be of a superior quality. The chief obstacle to its being cultivated is the expense of labor.

As already stated, the agriculturists are endeavoring to render labor cheaper by importing Coolies. Hundreds have arrived and are scattered about on different plantations. A vessel is at present engaged in bringing more. The Coolies are more ingenious than the islanders, and readily imitate all that they see performed; they are also more industrious. Being peaceable and well-disposed and occasioning little expense, they are quite an acquisition to the planters and farmers. They are engaged for a term of five years, the planters paying the expenses of their passage—some $50 each,—providing their food and paying them $3 per month. The Islanders performing less labor, demand from 50 cents to $1 per day in Oahii. At the expiration of the term of their engagement, they are at liberty to return to China or to remain.

An Agricultural Society was instituted here under the Royal Patronage in 1850, and its members are among the most influential persons of this community. The influence of this Society will doubtless be great in advancing the interests of agriculture in the kingdom. The present is the day of small things, but not to be despised.

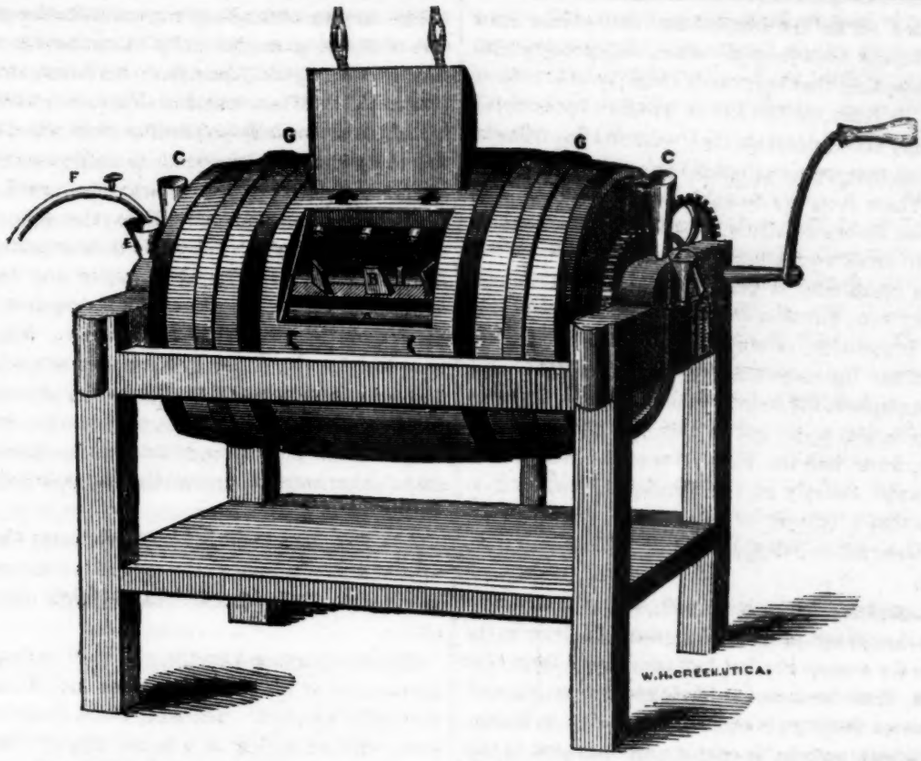
The first exhibition of agricultural productions, &c., was held last fall at Honolulu. It being a new thing to the inhabitants, but little was contributed on the part of the native community. The foreign planters and farmers were those chiefly interested. Several fine horses were exhibited by gentlemen desirous of improving the breed; a few fat cattle and sheep were seen; also large swine, and a fine specimen of fowls. Within the hall appropriated to the show of domestic productions, were displayed numerous samples of sugar from various plantations; specimens of coffee and arrow root; bags of wheat and oats of very fine quality, and stalks of sugar cane from 10 to 12 feet in height; potatoes both sweet and Irish, with kals, tomatoes, carrots, turneps and radishes. A few samples of butter were seen. The display of fruits was not large, but they were all of fine quality. Bananas, pine apples, figs, fresh and dried, and melons were the most numerous. A sample of pomegranates grown in a garden at Honolulu, and an apple and peach from trees reared with care, gave a variety to the show of fruits. But few agricultural implements were seen.

This first exhibition has unquestionably created an interest which will go far to the improvement of similar exhibitions in future. The awards as prizes were silver cups, medals, volumes of agricultural books and money. The annual address was delivered by Hon. Luther Severance, U. S. Commissioner at these islands, and was an able production, which was listened to with great interest and profit.

The agriculture of the islands seems destined prospectively to be prosecuted chiefly or altogether by the foreign population and their posterity. The Hawaiian race, like the Indians of N. America, seem to be vanishing before the influx of foreigners. Diseases and epidemics have during the last few years, swept thousands from the land, and at the present time the number of births does not equal the deaths. The race of chiefs is rapidly passing away, leaving but few descendants to take their places, and they by their excesses bid fair for short lives.

The past year has not been a favorable one for the interests of agriculture at these islands. The markets of Oregon and California on which we rely for the disposal of our productions, have been overstocked by importations from various quarters, of articles of every variety; being in sympathy with them, we have shared in the depression. We have, however, the prospect of fair remuneration and steady demand for our staples in time.

The effectual prosecution of agriculture here demands a large investment of capital—much larger than in the U. States. Land can be purchased at prices from 50 cents to $1 per acre and upward, according to locality; but the expense of erecting buildings, enclosing grounds, &c., owing to the scarcity of material, is somewhat of a drawback to individuals with moderate means Yo truly, W. C.



The Excelsior Churn.

Patented by G. B. Clarke, Leonardsville, Madison Co., N. Y.

A is the rotating or revolving body, worked by crank and gearing, as shown, or it may be attached to any motive power by passing a band directly on to its raised hoops G G. Two or more large churns can thus be driven in one frame, by passing a short band from the first cylinder to the second, and from that to a third, &c., thus affording facilities for churning any quantity of milk and cream, together or separately, at one operation. By a new and simple device, the body is easily made water tight at its lid and bearings on the fixed or permanent axles. The cross bar, or dash, is a narrow wooden bar, placed longitudinally above the center of the barrel or body, with projections B on its upper edge, extending upward to the periphery, at any desired angle. Pins inserted in two side staves of the cylinder, pass between the projections on the cross bar, which is removably attached, or supported by iron braces, to the axles on which the body rotates or revolves. The axles are hollow, with ventilating funnels C C, set in blocks, and extending downward into their cavities. By closing the outward end of the axles, a perfect ventilation of the cylinder is effected, even when filled above the place of its axis. The cavities of the axles permit the crooked water tubes E E to be passed through them, to be inserted in the corked ends of the small metallic cylinder in the center of the churn. Through these tubes which close by their flanges, the outward end of the axles, and being of less diameter than the cavities, so as not to obstruct the ventilation, a stream of co'd water can be kept running; the water passing down the outward injecting funnel through the tube, filling the tempering cylinder, (the small tube on the cylinder should be corked after the air has escaped,) and passing out at the waste pipe. This need only be used when tempering is necessary, and where running water cannot be applied, a few pails from the well will reduce the temperature sufficiently. A thermometer may be used to ascertain the temperature of the water at the waste pipe, which will indicate correctly that of the milk or cream. The cross bar, tempering cylinder and tubes, can all be removed from the barrel of the churn, thus leaving nothing but the empty cylinder for cleansing. [See advertisement.]

"Thoughts on Manures."

Messrs. Editors—I propose to make a few comments upon the following extract, taken from the second article in the March number of the Cultivator, termed "Thoughts on Manures, special and general," viz: "The writer has often been amused with the theories of writers, on the subject of manures and vegetable nutrition. Many eminent men have advanced the idea, that vegetables derive most, or a large portion of their food from the atmosphere. To demonstrate the incorrectness of this idea, we have only to suppose a case. Suppose we select a sterile spot in the middle of the richest prairie of the west, and in that spot plant corn or any other vegetable. What advantage will the atmosphere, which is charged with the exhalation of fifty thousand acres of prairie land, be to that corn? Will it make it grow or produce? The truth is, the atmosphere has the same influence on vegetable, that it has on animal nutrition—no more, no less. The nutrition is taken from the soil, conveyed through the ascending sap vessels to the leaves, in the surfaces of which it is exposed to the action of the carbonic acid and nitrogen in the atmosphere, which prepares it for the appropriation of the plant to the formation of wood, fruit," &c.

I refer to this matter, from the circumstance that the position here taken, conflicts in a measure with my own views, and if correct, will destroy the conviction I have long entertained, that one of the most judicious and reliable modes of increasing and perpetuating the fertility of lands that are remote from market and others, is by cultivating clover, luzerne, &c., and allowing them to fall upon the ground, and the plowing under of green crops.

Now, if as assumed by the writer of the above extract, vegetation receives little or no nutriment from the atmosphere, but obtains it all, or nearly all, from the soil, no increase of fertility would result from the plowing under of green crops, or the growth of clover, &c., because the plants would return to the soil the exact quantity of ingredients they derived from it, and *no more*. Hence, the theory of the writer is in direct conflict with multiplied experiments, and with what I had supposed was a settled principle in agriculture. For it is too well known to need repetition, that the seeding of land with clover, or any grass, and allowing it to remain a few years in pasture, greatly invigorates the land and augments its productive powers; and the turning under of green crops is attended with the same results

Now these facts, (for they must be regarded as such)

are accounted for on the supposition that plants draw their nourishment both from the soil on which they stand, and the atmosphere that surrounds them; so that in their decay, they increase the fertility of the soil, by carrying back, not only those elements that were drawn from it, but also those that were extracted from the surrounding medium. These facts can be explained in no other way, except by the theory of shade, which is too visionary a conjecture to merit even a notice.

There are multitudes of proof in nature, that vegetation not only *can*, but *does* obtain food from the atmosphere, the proportion of course, varying with circumstances, in some instances all. Of the latter, the most common example is the lichen that clings to, and survives on the barren rock; but to this may be added certain mosses, ferns, and the Epiphytes of the tropical regions, that exist entirely on the atmosphere, while it is well known that a branch of live-forever, (Sedum telephium) if fastened to a dry, hard wall, will grow an entire season.

These examples, in connection with others unnecessary to mention, are *proof positive* that plants *do* draw on the atmosphere for a support; but independent of these, the simple fact, that continuous, uncropped vegetation always generates fertility, is equally conclusive evidence. Indeed, it is highly probable that we are indebted to this wise provision of Deity for the very existence of verdure itself. For at the dawn of vegetatiou, the earth must have been destitute of vegetable matter; hence plants were driven to the necessity of looking elsewhere for their organic constituents, and had they been forbidden access to the great atmospheric ocean that surrounded them, they must have perished. It is to this law of nature that we are indebted for those extensive deposits of peat that are scattered over the earth's surface, and those mountain masses of mineral carbon that lie buried beneath it. Their existence in the absence of this law, would present a problem that would defy solution.

In fact, there is scarcely room for a reasonable doubt of its truth, for the whole economy of vegetation is corroborative of the principle that the atmosphere is the great storehouse, from whence its supplies have been and are drawn. Without admitting its correctness, it would be impossible to account for the circumstance that a forest of long standing will have enriched the soil, and at the same time accumulated in its gigantic trees an immense amount of organic matter. Taking the position of the writer of the foregoing extract, it would be one of the most impoverishing processes imaginable, and all newly cleared lands would require long nursing before they could be fully resuscitated and restored to their original fertility, prior to the exhausting operation of rearing a huge forest, that drew its entire support from the soil on which it stood.

But science has rendered the idea that observation upon the operation of nature, would seem to establish, perfectly consistent, by revealing to us the composition of the vegetables and the atmosphere. It has taught us that the four organic constituents of plants, carbon, hydrogen, oxygen, and nitrogen, that constitute from eighty-eight to ninety-nine per cent of every vegetable substance, exist in the atmosphere in an available form.

The oxygen and nitrogen constitute the greater portion of it, being mechanically intermixed in the proportion by weight, of 77 parts of the former to 23 of the latter. The carbon exists in the form of carbonic acid in small and variable quantities dependant upon local causes; while the hydrogen is found in combination with oxygen and nitrogen in the form of aqueous vapor, and slight traces of ammonia. Thus, the organic elements of plants are found in the air in inexhaustible quantities, for the carbonic acid, aqueous vapor and ammonia, are constantly being eliminated from the surface of the earth by evaporation, combustion and decay. These elements may be taken in, either by the leaves or rootlets. In the leaves by direct contact, in the rootlets by cool currents of air condensing the vapor, that carries with it in its fall, common air, carbonic acid and ammonia. Let it enter either way, of course the atmosphere is the source of supply.

I do not mean to be understood to say that all plants obtain all of their organic support in this way, but that all do some, and a few classes of simple organization, do all.

The case supposed by the writer, "to demonstrate the correctness of his idea," it strikes me, is not as conclusive as he assumes. The fact, that a huge oak, or hill of corn, will not thrive on a house top, or "sterile spot in the middle of a rich prairie," is not evidence of the correctness of his position, but simply proves that they are unable to draw directly from the atmosphere their entire support, but require access to other supplies that were originally drawn from the air.

Neither can we suppose there to be any material difference between the composition of the atmosphere in the center of a prairie of 50,000 acres, and that without its circumference; for air is of so buoyant a nature that it is thrown into currents by inconsiderable causes, that tend to produce an equalization.

I consider also that there is a wide difference in the influence of the atmosphere on animal and vegetable life. The former subsists on the latter, while the latter draws most of its nourishment either directly or indirectly from the atmosphere. We may safely assert that animal life receives none of its nutriment from the air, (unless it be a small per centage of oxygen,) for it is inhaled only by the lungs, and that is not the proper channel for food to enter. What the precise office of respiration may be, it is perhaps impossible to ascertain, but it is at least a very plausible conjecture to suppose one of its main objects is to generate animal heat.

Combustion is always attended with a rise of temperature, and the slow combustion of carbon constantly going on in the lungs, must be attended by the same. In a full grown man in health, about half a pound of carbon is consumed every 24 hours, and exhaled in the form of carbonic acid, while a small quantity of oxygen is retained and enters into the circulation of the blood.

Now, in corroboration of this supposition, we have before us the fact, that men in extremely cold latitudes require a more carbonaceous diet than in warm ones. For example, the Esquimaux tribes, and those who navigate the polar seas, find that fat and oily food is not only heartily relished, but exceedingly conducive to health;

and this is in consequence of the necessity of their lungs consuming a greater quantity of carbon to generate the animal heat required to counteract the severity of the climate. Also, if an animal be confined in air that contains more than its natural per centage of oxygen, a hurried respiration and more rapid combustion of carbon ensues, which throws the animal into a feverish state—elevating its temperature too high. The nitrogen of the air is simply a diluent that regulates the quantity of oxygen. Now, if this be the effect of air upon animal life, it certainly is very unlike that upon vegetable, for the sun is the great agent whose genial rays warm into action the latent energies of the apparently lifeless plant.

True, there are occasionally instances of an elevation of temperature during the vigorous growth or flowering of certain plants, as a few species of the Arum, &c., but this is attended with the consumption of oxygen, which is by no means of general occurrence, the process of vegetation being to absorb carbonic acid, retain and appropriate the carbon to its own use, and eliminate the oxygen. J. R. P. *Chatham, N. Y.*

Floors for Foundered Horses.

Mr. Tucker—It is, doubtless, a well known fact, to many of your readers, that a foundered horse cannot be effectually cured, unless taken in hand immediately; and that in many instances, foundered horses continue to grow stiff and lame, as they increase in years. We do not deny that inveterate cases of founder *may be cured*, but the instances are few where a horse is effectually cured, after having been foundered for a number of years.

Foundered horses, could they but speak, would say that they suffered *extremely*, from the intense pain in their legs and feet; and any one may satisfy himself of this fact, by watching their uneasiness while standing still—their incessant stepping—taking up the forefeet constantly, and feeling, as it were, with them, for an easy place to stand. This constant pain operates not unlike the tooth ache in the human family. By it the rest is broken, and the health greatly impaired.

But, if the founder cannot be cured, the condition of a foundered horse may be much ameliorated. I have a foundered horse, and many times it seemed almost impossible for her to get out of the stable. The elasticity of her legs was gone, and it was "miseryation" to see her walk. I put her on a floor of earth—but found it was too cold and wet for her health. I then laid a floor of plank directly on the ground, leaving an opening for the fore feet, about six inches wide, and eighteen long. During most of the time she would stand in this opening. As the floor was laid on a calcareous, retentive subsoil, she soon made mud in this hole. In a short time her legs began to assume their wonted elasticity, and many times no appearance of founder could be discovered.

The object in having a plank floor with a hole in it, as described, is twofold. One is, the horse may have all the benefit of a floor of earth, and yet not be in danger of being exposed too much to a wet and cold stall. Another is, it is a great relief, after standing in this mud a sufficient length of time, to stand on the floor; and when they lie down their bed is dry.

If those who are so unfortunate as to have foundered horses, will construct this kind of floor, they will soon discover a great improvement in the travelling of their horses, and also in their health and fleshy condition. Truly yours. S. Edwards Todd. *Lake-Ridge, Tompkins Co., N. Y.*

Analyses of Bran and Oil-cake.

Eds. Cultivator—In the May number (p. 192) of the *Cultivator*, I see an inquiry for analyses of bran and oil-cake, which you said you could not furnish, save an imperfect analysis of the ash of bran, which you gave. I therefore take the liberty of sending you some more full. The analysis of the bran of "a soft French wheat," grown in 1848, by M. Millon, yielded,

Starch, dextrine and sugar,	53.00
Sugar of liquorice,	1.00
Gluten,	14.90
Fatty matter,	3.60
Woody matter,	9.70
Salts,	0.50
Water,	13.90
Aromatic principles, &c., (by loss,)	3.40
	100.00

I copy this from Beck's second report on the breadstuffs of the United States. Patent Office Report, 1849, part second, page 55.

Prof. Norton, in his lectures on scientific agriculture, delivered at the Yale Analytical Laboratory, in 1850, quotes the following analyses of fine samples of wheat bran:

	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.
Oil,	5.26	6.17	6.16	6.53	6.49
Water,	11.29	11.82	12.02	12.06	12.91
Ash,	6 90	6.09	9.09	7.08	6.07

From all the above analyses, we see that it contains the ingredients to make it valuable for feeding, which coincides with the experience of many practical farmers.

Prof. Way, of the Royal Agricultural College, England, published the following analyses of flax seed and oil-cake, in the Journal of the Royal Agricultural Society, and they were copied in the U. S. Patent Office Report, 1849, part second, page 488, where the following remarks are made:

Seven samples of American oil-cake gave the following results:

Oil,	11.41
Water,	7.60
Nitrogen,	4.74
Ash,	6.35

The mean of several analyses of the ash of flax seed, is as follows, which will perhaps represent very nearly, the composition of the ash of oil-cake:

Silica,	1.45
Phosphoric acid,	38.54
Sulphuric "	1.56
Carbonic "	0.22
Lime,	8 40
Magnesia,	13.11
Peroxyde of iron,	0.50
Potash,	34.17
Soda,	1.69
Chloride of Sodium,	0.36
	100.00

"From the above figures, the scientific farmer will see that the manure formed by 100 lbs. of oil-cake, is more than that derived from 300 lbs. of Indian corn. 300 lbs. of corn contain but 1¼ lbs. of phosphoric acid; 100 lbs. of oil-cake contain about 2¼ lbs." I am sir, your ob't serv't, W. H. Brewer. *Ithaca, N. Y., May* 11, 1852.

Never be idle. If your hands cannot be usefully employed, attend to the cultivation of your mind.

Horticultural Items.

STEALING FRUIT.—Nothing, scarcely, tends more to improve the substantial prosperity and comfort of the country, than fruit raising; and nothing, perhaps, encounters more obstacles. The disasters by severity of climate, and by neglected cultivation, having been laboriously avoided; the dangers from disease, as the blight, and the yellows,—and from insects, as the caterpillar, the borer, the grub, the leaf-slug, plant-lice, and curculio, having all been passed, and years of labor are about to be repaid by a delicious crop, to lose the whole by a troop of lawless thieves is a very common incident. A hungry palate for the enterprising cultivator, is poor pay for all this labor and skill, when the prize was just within his reach. A benevolent neighbor, resolved to give the idlers and all, a fair chance, planted as he supposed enough to feed all; to repay him, the thieves carefully selected the best for themselves, and left the unripe cullings for the owner, as might have been expected. The Prairie Farmer thinks, perhaps, this propensity comes "*by natur*," and that even "fines and imprisonment may not drive it out of the scamps." As proof he adds, "We are called on yearly to mourn the loss of some villainously hard green winter apples, poached in August." As we have plenty of patriotism in this country, could not some of it be directed into channels for the purpose of washing away this evil?

PRODUCTIVENESS OF STRAWBERRIES.—Several of the best varieties of the Strawbery,—among which perhaps the Cincinnati Hudson and Rival Hudson rather take the lead, but which are closely followed by such sorts as Large Early Scarlet, Burr's New Pine, Boston Pine and Dundee, in suitable localities and with proper culture,—may be made to yield at the rate of from one to two hundred bushels per acre,—in rare instances, a little more. But the editor of the Granite Farmer says, "We have seen a small bed of the Large Early Scarlet, but a trifle if any over a rod wide, yield *a bushel of fruit daily* in the height of bearing." Will Dr. Crosby please make his statement a little more precise, and inform us about how long this productiveness continued? Also, how *long* the bed was—whether one rod, or twenty?

HOVEY'S SEEDLING AND EARLY SCARLET.—It is always interesting to observe results in different localities. J. C. Brayton, an intelligent cultivator of Jefferson co., Wisconsin, says in the Prairie Farmer, "Of strawberries, the Large Early Scarlet is the best sort yet tried. Hovey's Seedling, fair, but less productive, does not exceed half the size represented by eastern cultivators, while the Early Scarlet exceeds their figures."

SUMMER PRUNING.—We have been long convinced that freely pruning *young nursery trees* during their most rapid growth is detrimental to their vigor. The peach, possessing great power of reproducing lopped shoots, comes the nearest to an exception—the remark applies with greater force to the apple, cherry, &c., which should be pruned in winter or spring. A correspondent of the Prairie Farmer states that he pruned young apple trees, (4 to 6 feet high,) early in spring, and then kept the snoots rubbed off the lower parts of the stems, leaving only suitable heads,—on one half of the trees. The others were left with their shoots untouched from top to bottom. The result was, that those which received no summer pruning were 25 to 40 per cent larger than the others, even after they were pruned up to heads the following spring. This was on fertile soil, in Missouri, where the apple trees grew from the roots into which they were grafted from 4 to 6 feet, the first year. On poorer soil, the difference would probably be greater. This subject is well worthy the attention of nurserymen.

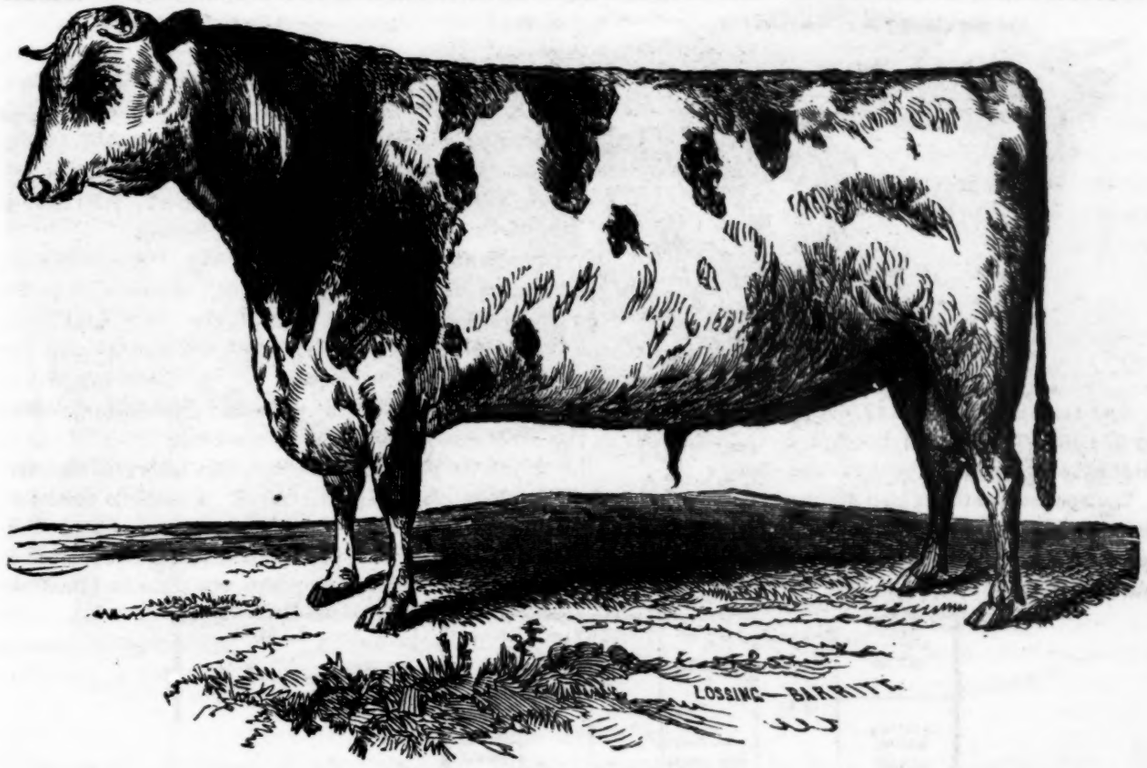
HOLLYHOCKS COMING ON THE STAGE.—The Dahlia is a superb flower, and is rendered more desirable by its autumnal season. But its tender roots are a great drawback. Were it a hardy perennial, it would far exceed in floral value even the Pæonia. Much attention has lately been directed to improvements in the *Hollyhock*, which is likely to rival the Dahlia, with the addition of hardiness. Semi-spherical flowers, exceedingly double, with closely imbricated petals, with all the various shades of deep and light rose, salmon, claret, deep crimson, brilliant red, pure white, &c. &c., have been produced so closely packed about the stem, that a green leaf can scarcely peep between them, and some fine varieties have grown nine feet high. A single English cultivator has an acre of his nursery devoted to them, 6,000 being in splendid bloom at one time.

WINTERING TEA-ROSES.—The following mode, (substantially the same except the thatching, that we copied some years since from the Prairie Farmer,) is reported by the editor of the Horticulturist as having been entirely successful the past severe winter:—One foot of tan-bark, applied to the oval bed late in autumn, nearly covered all the stems, the tallest being bent down. This tan-bark was kept *perfectly dry* by means of three bundles of rye straw, formed into circular radiating thatch, gathered to a point at the centre—forming what a farmer would call a *cap*. Keeping the tan dry is the great requisite.

Plants Injured by Winter.

A correspondent writes, "I have never seen box edging so blighted, *but this damage is all on the sunshiny side*. A warm sunshine while it was frozen, explains the matter to me. The tree box is not injured in the slightest degree—neither is *Ribes sanguineum* in the south border, [shaded on the south by a high tight fence,]—nor Magnolia obovata, placed where the sun could not reach them in winter; yet both these shrubs are tender in the open ground. It has been said that some rose bushes which are tender when exposed to the sun-shine in winter, are hardy on the north side of a building. If so, it must be such as can bear the freezing. My experience long ago dictated, that less depended on the intensity of the frost, than on the manner in which the temperature is raised."

We have observed similar results. Box edging exposed to the sun was quite brown; while that which was protected by a board at the south, possessed all the greenness of the freshest verdure. In some localities the sun was shaded by clouds after the severest cold, and as a consequence, some plants were less injured than by less severity, followed by a clear sky. In such cases, *Ribes sanguineum*, and several other half tender plants, escaped injury; and peach buds were not killed by 12° below zero.



Short-Horn Bull "Splendor."

Eds. Cultivator—I send you a cut of my Short-horn bull "Splendor," for which, with a few remarks, I desire a place in the Cultivator.

Splendor, now in his fifteenth year, was bred by Mr. Thos. Weddle; (dam Beauty, sire Charles, (1816,) both imported by T. W.;) he has been owned most of his life in Avon and Lima, Livingston Co., N. Y., and has been served mostly to *native* cows; the improvement shown by his get, thus bred, is very remarkable, being large, well made, and with a style peculiarly their own. Mr. Albertson, a former owner of this bull, writes me as follows: "Splendor has long been considered by *good* judges, as the best sire in Western New-York, his get making more pounds of meat for food consumed, than any other stock. * * * We feed off our steers at three years old, (often at two.) * * * His heifers commonly make good milkers. I own a cow of his get, that in good feed has given 70 lbs., (35 qts.) of milk per day." * * * Mr. Ganno, of Michigan, has a grade cow got by Splendor, which has given 30 to 35 quarts of milk per day, for weeks together. She made 26 lbs. of butter in ten sccessive days. The large, mostly white fat heifer, which received the first premium at Albany, last winter, was got by Splendor. She was bred by Mr. Aaron Barber, of Avon, N. Y. John R. Page. *Sennett, Cayuga Co., N. Y.*

A Call for Experiments.

Eds. Cultivator—Equality of circumstances which might influence the result, and perfect accuracy in every particular, are absolutely necessary in order to derive benefit from experiments. And even after having done all in the most accurate manner, it would not seem to be safe to form positive conclusions from the results of one trial; for there may be circumstances unknown to us, or beyond our control, which might give a result from which we should, if we depended upon it, form wrong conclusions; or, publishing them, we might possibly mislead others. Indeed, I do believe that many an inquirer after agricultural truth, is discouraged by the apparent conflicting of the results of experiments, and it may be is led to think it makes no great difference, after all, which way a given thing is done.

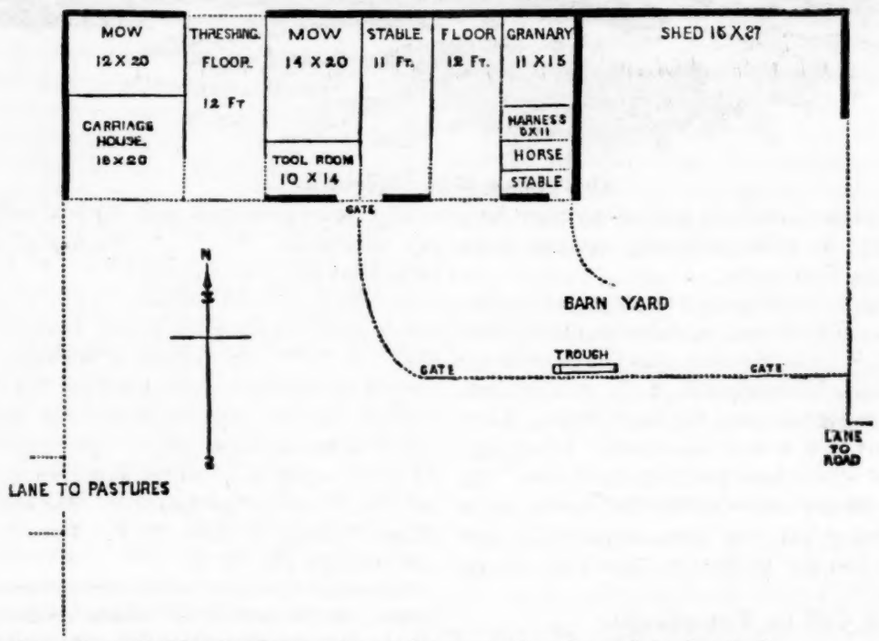
I am led to these thoughts, in part, by reading the communication of F. B. of Canaan, N. Y. I may be wrong, for I never have tested the matter by careful experiments, yet had come to the conclusion that it was preferable to cut corn by the roots, both as to yield of fodder and grain. As to quantity of fodder, I will not speak, but simply state one fact which has come under my observation, relative to the quality of corn-stalks cut at the roots. Cattle will eat them at least half of the time, in preference to good hay, and surely they would not be likely to turn from hay eating, on which they might grow fat, to stalks which would hardly sustain life.

As to the yield of corn by the two methods, I have heretofore been satisfied with forming some conclusions from reasoning, and the trials of others, and guessed at the rest—a way of doing things for which I will offer no apology. Yet it is decided beyond a doubt, that several kinds of grain are better, both as to quantity and quality, when cut before the kernel is hard; and enough is known of the nature of fruits, to make conclusions drawn from their habits, out of place when applied to grain. Accurate and continued trials are needed—close examination into every circumstance which might effect the result; a particular noting of ripeness to which the grain had arrived when cut; the size of the bunches, and length of time it stands before being husked. Why may not quite a number try the experiment this year, and compare notes through the medium of the Cultivator, and continue to try and compare results, until we have proved corn to be an exception among grains, or are able to add certainty to reason and analogy. H. W. *Ira, N. Y.*

Plan of a Barn.

THE *barn* is 80 by 30; 14½ *feet* posts. The shed is 30 by 15; 16 *feet* posts, and boarded down to the wall on which the sill rests, on the north and east.

The apartments in the plan are marked in a manner to denote what they are intended for; the dotted lines represent doors. The carriage house doors are on rollers, placed underneath, and run past one another; in every instance where it was practicable, the doors run on rollers. (The rollers that suspend a door are preferable to those underneath.)



At the north end of the stable and *granary*, and on the east side of the *horse stable*, are glass windows, to admit light and air, whenever it is desirable.

The *mows* adjoining the threshing floor, are boarded up 3 feet, to prevent the grain from rolling back into the hay.

The manger in the stable is 2¼ feet wide; in front of it are perpendicular rounds, between which the cattle have to pull their hay. The feeding troughs are constructed of doors hung on hinges in the floor, and supported by chains at the top. The size of the troughs can be varied at pleasure, by letting out or hooking up the chains.

Under the east end of the barn is a cellar 30 by 34 feet; by reference to the plan it will be seen that it extends far enough to take the droppings from the stable.

Under the tool-room I have a cellar, walled very thick and pointed, which is intended for a double purpose, viz: to keep *ice* through the summer, and vegetables for neat cattle in the early part of the winter; access to this cellar through a trap-door in the tool-room.

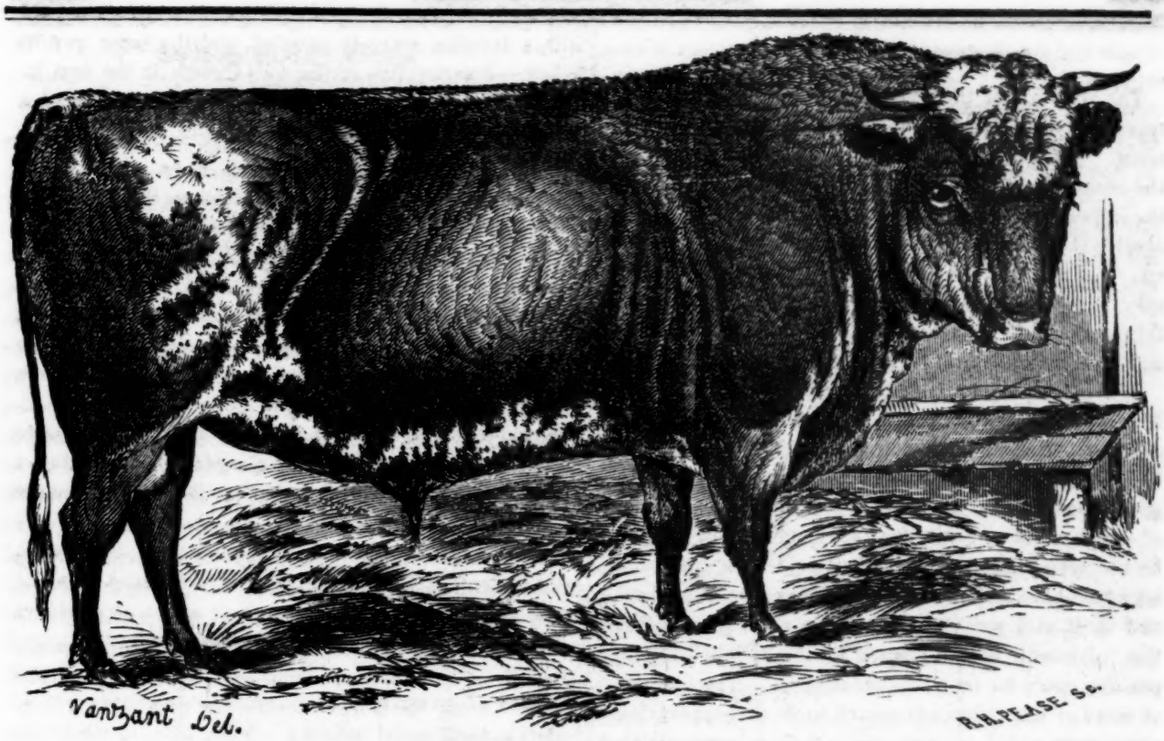
It may be remarked by some, that I have not appropriated any place to young calves. I have no necessity for it, as I keep all my cows in another barn; but should it be desirable, a small pen might be partitioned off in the mow adjoining the stable, which would be an excellent warm place for such tender stock.

On the east side of the yard I have a high board fence; between this and the road, about ten rods, is a thrifty young apple orchard, which is a protection from the east wind, while the barn shelters the yard on the north sufficiently, so that cattle may lie out comparatively comfortable, through the coldest day of winter.

I might enlarge considerably upon the facilities for making manure under cover, and the value thereof, but will add only a word. I have none of those unanswerable arguments, stern facts, derived from actual records to prove the efficacy of sheltering manure, but it is my firm conviction that the increased value from the stock which I keep in this barn, considering quantity and quality, pay me an annual interest of over 25 per cent on the entire cost of my cellar.

You doubtless will think that the sections of *lanes* are superfluous, but I may furnish you with a plan of my *cow barn*, at some future time, when I could give you a better idea of their relative position, than if I were less explicit in the present instance. I will remark, however, that the *north end* of my *cow barn* stands on the lane herein represented. Yours very truly. LEWIS S. TAFT.

Uxbridge, Mass., Jan. 19, 1852.



Ayrshire Bull "Dandy."

The above cut represents the Ayrshire bull "Dandy," the property of J. C. TIFFANY, of Coxsackie, Greene county, N. Y. He received the first premium in his class at the fair of the N. Y. State Ag. Society, held in Albany, 1850—also the first premium at the show of the American Institute in New-York city in 1851. He was imported by Mr. SAML. G. WARD of Lenox, Mass. He is a bull of superior points, great substance, and compact form. His color is dark red, with a few white spots. He is decidedly one of the best bulls of this valuable breed in the country.

Thoughts and Experience.

EDS. CULTIVATOR—It is astonishing to me that farmers do not read agricultural works. It is uniformly the case, that when a man takes THE CULTIVATOR, or any other good work of the kind, you can tell it at once by the appearance of his place. Talk with him, and it will soon be evident whether he is a friend of improvement, for a man who never reads is never a wise man.

I have been a subscriber to Agricultural Papers for the last twenty-five years, sometimes taking as many as three, and have been the gainer by ten, yes twenty fold. I own a small farm of some 46 to 48 acres of working land. My crop last year was 326 bushels of wheat, 206 bushels oats, 350 bushels corn, 103 bushels potatoes, 21 tons prime hay, besides many other smaller products. The land in this section of Frederick county is second rate, being of the red sand stone formation. Many of my neighbors have twice as much land, and do not raise half as much—their soil is worn out, mine is improving.

I have plowed my corn land eleven inches deep in the fall, as that is the only time that the soil can well be plowed to such a depth. By this means five more inches of soil is exposed to the winter frost, becomes disintegrated and mixed with the top soil, and the roots of the corn have eleven inches instead of six, in which to find their nourishment.

Some years ago, I invited a friend to see my plowing. It was late in the fall, and the land was covered with a heavy body of grass, clover and timothy. He said to me, "why do you not let your cattle feed here, and not waste your grass in this way?" I replied that I wanted the grass which was being turned under, to feed my horses, to fatten my hogs, and some to sell. How is that, was the interrogation? I explained to him that in the first place it was necessary to *feed* the corn, and then that it would thrive, and repay principle and interest, and not only so, but would make provision for the wheat crop next year. To expect crops without something in the ground to produce them, is the height of folly; and thousands of farmers are laboring, like one beating the air, from ignorance of what preparation is necessary in order to insure fertility.

If the legislature of Maryland would pass a law, giving some good agricultural journal to every farmer in the state, and a dollar yearly to read it, and at the end of three years tax each one ten dollars, in nine cases out of ten the farmers would be largely the gainers.

I advise my neighbors to plant one row more of corn or potatoes, or something additional, to pay for a paper; but after all their apathy is surprising.

I do not think a man can be called a good citizen, or a useful member of society, who allows his land to lie a barren waste, and lives in poverty. His children are uneducated, often brought up in idleness and vice, and thus his example is handed down, a legacy of ruin to his posterity, and of injury to the community. Cannot this state of things be done away with? WM. TODD. *Utica Mills, Md., Jan.* 16, 1852.

Make few promises.

Acquisition of Knowledge.

The attention of the readers of the Cultivator has been repeatedly called to the importance of mental improvement. All will readily acknowledge, that it should be the constant care of the farmer to improve the soil, but the improvement of the mind,—the matter that should receive the first attention,—is delayed or entirely neglected. "These ought ye to have done, and not to leave the other undone." Farmers *should be improved* as well as farms, and their improvement should be attended to first, and then the other will be more easily accomplished.

When I was quite young, I marvelled somewhat to hear a young man say that he had never seen any wheat growing. He was intelligent and a skilful mechanic, and had always lived in a sea coast village, located in an improved agricultural district. Of course his knowledge of farming was extremly limited, and if, by any accident, he had been obliged to cultivate the soil for a subsistence, he would have had everything in regard to it to learn, and must have pursued his vocation under great difficulties, whereas if he had learned the theory previously, the practice could be much easier attained. The ignorance of some of our citizens in regard to all that appertains to agriculture would seem astonising to those not acquainted with their mode of life. A theoretical knowledge of agriculture certainly cannot be incompatible with the vocation of any individual. Such great changes are continually taking place, that the city gentleman may in a few years be the proprietor of some quarter section in a remote district, where his knowledge of ledgers and stocks would avail him nothing in gaining a livelihood "by the sweat of his brow." And the city belle of to-day, may be in after life an obscure individual in some back settlement, placed in circumstances in which she would give all her knowledge of polkas and pianos, if she knew how to make butter and cheese.

But the worst feature of the case is, that there is so much ignorance among farmers themselves, even in regard to the most important part of their business. And they seem contented to remain in ignorance. Many plead want of time for their inattention to the means of acquiring knowledge, when they spend hour after hour, in idleness or foolish gossip with their neighbors. A mistaken notion prevails to a great extent, that the boy when he finishes his school education is done with books, and must lay them aside for the implements of his business. It is certainly unwise to be so much engaged in labor as to find no time to read and study. Some time *every day* should be spent in reading something that will inform and strengthen the mind. And the mind should be trained to habits of thought and study, so that the information picked up here and there, may be appropriated, and result in good to the individual. This is not only a privilege that all may have, but it is a duty that all should perform.

With some it seems to be preposterous to pretend to be "wiser than their fathers were." The system of cultivation that has been handed down from father to son, will admit of no improvement, and must be pursued without any variation. They cannot get out of the old beaten track, but follow in the footsteps of their predecessors with a devotion scarcely equaled, and the same results follow,—deterioration of the soil, though in the first instance it was not so readily seen, as they cultivated a rich soil, that was not so easily worn out.

Again, the opinions of some men when once fixed in the mind, are to them as "unalterable as the laws of the Medes and Persians." And they will take their course in the management of their business, though reason and common sense should be disregarded. Such persons know too much to learn, and are ever ready to applaud or condemn the actions of others, according as they agree or disagree with their own ideas. But it is not enough that knowledge be acquired, that the individual be intelligent and well informed. It is of great importance to be able to adapt knowledge to circumstances, and to act understandingly and with judgment in the performance of business.

In the agricultural community there seems to be a lack of faith as to the good effects of reading and study. They do not see the necessity of it. And contented with their limited information, there is nothing to stimulate them to make efforts to obtain more knowledge. And the mercenary spirit that prevails to a great extent is opposed to intellectual progress. Many seem to think that it will do them no good,—dollars and cents being their standard of value,—to read an Agricultural Journal, and a dollar spent for that purpose is considered as thrown away. Others limit their means of information to a weekly political paper, and they cannot afford any more. The acquisition of agricultural knowledge should be attended to first by the farmer, but the means for general information should not be neglected, and farmers, as a class, should be well informed, for they have as much leisure time at their command as any other class of citizens.

If the young farmers of the present day would pursue their vocation more successfully than their fathers did, they must attend to the means of information, and not dissipate their mental energies in frivolous amusements, or in reading the trashy "yellow covered literature," that is scattered over the land, contaminating and cursing all that are interested in it. And there are, happily, indications that the next generation will avail themselves of all the means in their reach, to increase in knowledge. The circulation of agricultural periodicals and the sale of agricultural books, is a sign of progress, and though it is comparatively the few and not the many that are interested, yet important results are effected and great good accomplished. W. L. EATON. *Nashua, N. H.*

MOISTURE BY DEEP PLOWING.—P. Morris says in the Farm Journal, that he broke up a stiff sod for corn, with a heavy plow drawn by four oxen. A subsoil plow followed, running down six or seven inches deeper. The whole work was so thoroughly performed, that a stick could be thrust down into the loose earth, in almost any part of the field, to a depth of fifteen inches. The summer was excessively dry, pastures were burnt and bare, and tillage crops suffered severely. But the corn on the subsoiled land continued green and luxuriant throughout the season.

French Merino Sheep.

MESSRS. EDITORS—I send you a wood cut,* engraved from a Daguerreotype, of a group of French Sheep imported by WM. CHAMBERLAIN, Esq., of Red Hook, of your state, and myself, one year since.

The buck "Matchless," represented in the above cut, is three years old, and weighed on the first of last March, 261 lbs. His fleece of one year's growth, was 20 lbs. 12 oz., after losing a portion of it on the sea voyage. As to the shape, constitution, thickness and fineness of wool, this buck is considered by all who have examined him, to be equal to any of the breed. He was my first choice in France, and was very much admired there, especially by some gentlemen from Australia, who owned large flocks of sheep, and were in France for the purpose of buying bucks to cross with their sheep, which originated in Germany. One of these gentlemen informed me that his number already reached 44,000, and that he intended to increase it until it reached 100,000.

This man alone wanted 100 bucks for the service of his own sheep. He also informed me that others from his country were making preparations to travel in France and Spain, for the especial purpose of selecting sheep, with a view to increase the weight of fleece, and if possible to retain the fineness. So you see that not only we "Americans" have the "sheep fever," but that it is rapidly spreading over almost the whole world.

The live weight of the ewes here represented, is about 125 lbs. each. The average live weight of our whole flock of this breed, after having been shorn, did not vary much from 100 lbs.

The average weight of fleece of the whole flock, 12 lbs. 8 oz. In selecting the sheep, I regarded a large size as a matter of secondary consideration, choosing those that would produce the most fine wool, according to the cost of keeping.

It is believed by many that the French Merinoes require more than ordinary feed and attention, to keep them in good condition; but my experience with them, thus far, leads me to the conclusion that they will thrive well on ordinary keeping. They require nothing but a good pasture during the summer season. I gave mine nothing more. They are well adapted to our climate, and will bear exposure to storms equally as well as any sheep in the country. A portion of ours were turned off to pasture last June, and came to their winter quarters looking remarkably well. They had no grain of any description, nor were they sheltered from a single storm during the season.

Although the French sheep possess many desirable qualities, I should be unwilling to say that they are *greatly* superior to all other breeds in every particular, but believe that all experienced and impartial judges admit that they possess the following desirable points, viz:

1. A good vigorous constitution.

2. That they carry a heavy fleece of wool, of a fair grade, and

3. That they are gentle and docile in their dispositions, with an easy propensity to fatten.

It is my belief that the above qualities are better combined in the French sheep than in any others; but where wool alone is the object, I am of the opinion that there are other varieties of the Merino, of a less size, which will yield as much or more wool, and of a finer quality, in proportion to their size, and consequently the cost of keeping, than those under consideration.

There are, perhaps, some few improved flocks of the old Spanish stock, that will compare favorably with the French sheep, for the profitable production of wool; but the variety to which I have more particular reference is the Silesian Merino, of which I will send you an engraving, and describe in some future number. GEO. CAMPBELL. *West Westminster, Vt., May* 20, 1852.

* The cut has not come to hand. It will be published hereafter.

PRUNING IN AUTUMN.—The late S. W. Cole, who strongly recommended autumnal pruning for fruit trees, says, "Thirty-two years ago, in September, we cut a very large branch from an apple tree, on account of an injury by a gale. The tree was old, and it has never healed over, but it is now sound, and almost as hard as horn, and the tree perfectly hard around it. A few years before and after, large limbs were cut from the same tree in spring; and where they were cut off the tree has rotted, so that a quart measure may be put in the cavity."

INCREASING NEW KINDS OF WHEAT.—Scarce and valuable kinds of wheat may be more rapidly increased by dividing the roots or stools, than by the ordinary process of simply sowing and re-sowing. A very successful experiment is recorded as performed some years ago in England, with the stool from a single grain of wheat. It was sown early in summer, and tillered so much that it was divided early in August into 18 parts. In the autumn, these were again divided into 67 separate plants. In the spring the tillering went on rapidly, so that 500 plants were finally obtained, so that they yielded 21,109 ears, or about 40 to each plant. The whole product was a little short of a bushel. The reader will understand that the best possible chance was given, both in soil and culture.

DWARF APPLES.—The Genesee Farmer states, that a dwarf apple tree; seven years planted, and ten years old, the tree not over three feet high, growing on the grounds of Aaron Erickson, of Rochester, produced a Fall Pippin *sixteen inches* in circumference and weighing *twenty-six ounces*. Two or three others were nearly as large. Apples grow rather larger on dwarfs than on standards. There is one interesting question in connexion with this subject, that we would like to have answered, viz: At what price could such apples, thus grown on dwarfs, be afforded per bushel, as a general average for seasons and cultivation and the cost of a crop per acre,—and the comparative value with other apples in market?

A PRACTICAL WRITER.—Every intelligent farmer knows perhaps that one of the best and most complete books ever written on agriculture, is Stephens' Book of the Farm. The reviewer of this work in the English Journal of Agriculture, gives a little insight into the reason of this superiority, by informing us that besides his eminent scientific knowledge and a remarkable facility for popular writing, the author has been in the habit of sowing, stacking, feeding the threshing mill, sowing grain and grass seed, grooming his own horse, guiding the plow, all with his own hands; and that in fact "the only operation that a farm laborer has to do, that Mr. Stephens cannot do well, is riddling corn."

Culture of Indian Corn and Oats.

We have been favored by the writer, with the following statements which he furnished to the Windsor Co. (Vt.) Ag. Society, for publication in the Cultivator.

GENTLEMEN—There are some farmers whose intelligence and skill in agriculture I greatly respect, who doubt that there can be one hundred bushels of Indian corn grown upon one acre of land. But my own practical experience and improvement in agriculture, have proved, not only to myself, but to all who are conversant with the following manner of cultivation, that there can be such crops of corn raised.

In order to produce a great crop of corn, as well as any other large crop, *deep plowing* is indispensably necessary, and plow in a coat of manure at each plowing, in order to mix the manure well with the soil, observing at each time of plowing, to go equally as deep if not deeper, than it had been plowed before. When I calculate to grow a great crop of corn, I begin to prepare the ground the year previous. The first year I put on from 40 to 50 common ox cart loads of coarse or long manure to the acre, in the spring of the year, and plant it with corn. The result of the first crop, with good attention, is generally about 60 bushels to the acre. The next spring I apply full 50 loads of same kind of manure to the acre; this last coat will bring the crop to maturity in the late stages of its growth, while the previous coat being well mixed with the soil, will start the crop with the greatest luxuriance in the first stages of its growth. I plant from the 18th to the 20th of May, rows four feet, and hills two feet apart; at the first hoeing, which I have done with great care, the stalks are reduced to three in each hill; then a mixture of lime, plaster, and hard wood ashes, unleached, a gill to each hill of corn is immediately applied. After the second hoeing, plaster alone is applied, a table spoon full to each hill. It is hoed the third time, and each time with care and neatness, using the cultivator, and elevating the earth but slightly around the stalks, keeping the surface clean from weeds and nearly level. The seed is a mixture of the yellow eight rowed and Brown corn, so called, and when the two kinds become blended, it imparts a deep, rich chocolate tinge to the whole. The cob is small, the ears are long, well filled out, and the kernels deep, close, and compact. Such is the manner of cultivation upon three and one half acres the past season, *one acre of which yielded* 92 6-7 *bushels, another acre* 88 4-7 *bushels.* These acres were taken one from each side of the field the longest way; through the centre of the field, lengthwise, is a slight elevation or ridge, on which the crop was not quite as good.

Had it not been for the severe drouth late in the summer, and had it set as well for ears as usual, I have no doubt but there would have been over 100 bushels to the acre on the whole field, as it was as heavy a growth as a field of four acres I had in 1849, which produced 104 bushels to the acre, but it set to ears much better than the field of the present season. The soil where I grow my corn, is of the alluvion bottom lands upon the Connecticut river, and no where in the known world, is there a better soil for the production of this valuable grain, but it will not grow even here spontaneously; it requires care and labor, skill and judgment, and these rightly exercised upon such a soil, will be annually amply remunerated in full compensation. I present these two acres of corn for the first and second premiums on the first and second best acres of corn.

Oats—I also present, gentlemen, two acres and 15 rods of oats, which produced within a fraction of 174 bushels, weighing 34 lbs. to the bushel. The soil is the same as my corn land, alluvion bottom land; it was planted to corn the previous year with 50 loads manure to the acre spread broadcast and plowed in ten inches deep; it was plowed again ten inches deep, last spring, and sowed to oats about the 20th of April, 1¾ bushels of seed to the acre; harrowed thoroughly and rolled down smooth; the straw grew so rank and stout that it stood up well, and the oats, when reaped, stood over six feet high on an average, with long heavy heads and well filled. I will here remark that it is a mistaken notion to seed with more than two bushels of oats to the acre, whenever the soil is, or has been well manured the year previous; by seeding thus sparingly, the straw has more and better opportunity to expand and grow larger and stronger, and the crops will be less likely to lodge; the heads will mature better, and more bushels will be obtained to the acre. Another important consideration in seeding oat land sparingly is, if we are desirous of seeding to grass, the grass seed will take root much better than when the oats are sown thick, and fall down in consequence. It is a common saying among farmers, that oats are a bad crop with which to seed down to grass; I have always practiced seeding to grass with my oat crop, and never even in the dryest seasons have I lost a single grass seeding.

These two acres and 15 *rods of oats, yield at the rate of* 83 *bushels to the acre. I offer them for the first and second best acres of oats.*

Now if farmers would consider and consult their best interests, and would cultivate their farms in some way similar to the above statements, they would not only raise their corn and other grains with half the labor, but after the land is laid down to grass, it will yield double the quantity of hay, and will hold out three times longer than land cultivated in the ordinary way.

No good farmer will half starve his horses, cattle, sheep or swine; neither should he half starve his land. If he does, in the end it will more than half starve him. J. W. COLBURN. *Springfield, Vt., Jan.* 12, 1852

Unruly Cattle.

EDS. CULTIVATOR—As your valuable paper is for enlightening the farming community, and a little information, however simple, communicated at times to one another, is often found very useful, I will throw in a small share for the benefit of your subscribers. Being troubled with some unruly cattle, that defied all my attempts to subordination, I hit upon the following remedy which has proved very successful. I took an old boot cut off the foot, slit and spread it out, and fastened it in front of their eyes by means of a short string, passing through the straps and around their horns. The animal though a little "blinded," seems to be at no great inconvenience. The remedy though simple may be found useful if you consider it worth inserting. J. P. PHILLIPS *Florida, Montgomery co., N. Y.*

Wire Worms.

Eds. Cultivator—If you know of any better way to get rid of wire worms, than to wait with patience till they have had their day and generation, I would like to have you publish it. I will give you a part of my experience with them. In the spring of 1848, I came in possession of the farm that I now occupy, nearly the whole lying upon what would be called a limestone ridge. Adjoining my barn is a small field of a little over two acres, that had lain in pasture two years. I plowed it up in the spring, and planted with corn; the worms cut it some, but not very badly. We got something over fifty bushels per acre that year.

The spring of 1849, we put about 40 loads of manure to the acre, (excepting three-fourths of an acre that took the wash from the barn-yard,) thinking to plant corn, cut it up in the fall, sow to wheat, and seed to grass. We did plant it, but the worms spoiled it entirely. Full one half of it they ate in the kernel before it came up, while a large proportion of what did come up, they soon killed. We then the last of June, plowed the ground again, and sowed to buckwheat—got a pretty fair crop, 87½ bushels. I consider buckwheat a poor substitute however for corn or wheat, on land that is good for either.

I then thought I would try fall plowing as late in the season as I could. Accordingly in December following, I set a hand to plow it. He plowed about three-fourths of it, when the ground froze so hard we were obliged to quit it. We plowed the ground north and south in the fall; and in the spring of 1850, thinking to pursue the same course, we had contemplated the season before—that is corn, wheat, and then seed down, we plowed the whole field through east and west. The part that was fall plowed as well as that that was not, we planted again to corn. This season I took bones and boiled them in lye, until the whole mass became like a paste; one half of this I mixed in ashes enough to dry it; for the other half I used plaster. At planting we put a gill of this mixture in each hill for eight rows, and then missed eight through the field; but the worms again spoiled the crop; and what was contrary to my expectations, there was scarcely a stalk left as far as we fall plowed, while there was a few where we did not. We then thought that if the creatures required vegetable food, we would try and starve them out; so we went over the ground several times with a gang plow, and kept it perfectly naked until harvest; at this time a crowd of work coming on, we neglected our special trouble for a time, when going on to the field after harvest, judge of my surprise to find the ground thickly covered with buckwheat, just coming up. I began to think we had two plagues on our hands instead of one.

By the time we could spare a team to go over the ground again, the buckwheat was too large for the gang plow, so we plowed it under with a common plow; the ninth of September sowed it to Soule's wheat, and plowed in with a gang plow. The worms injured about ¼ of an acre considerably—the rest was decidedly the best wheat we had; it was thrashed with the rest of our wheat, the whole averaging twenty-nine bushels per acre.

The worms have injured wheat considerably the past fall; they are decidedly the greatest pest we have.

I might perhaps mention that I applied the bone mixture to six rows through a field of eleven acres, but could see no perceptible difference in the growth of the stalks or the yield of corn. The whole was good, averaging sixty four bushels per acre.

Perhaps upon poorer land, or a soil of a different chemical composition, the result might have been different. John Strickland. *Elba, N. Y., Jan.* 9, 1852.

History of the Short-horns.

In the June No. of the Cultivator, there is an article headed "Reviewer Reviewed," by Sanford Howard, in which he introduces my name. It occurs in the article by him, in reply to "Platanus," of the April No., and the sentence is:

"Even Ambrose Stevens, to whom the writer, [Platanus] of the review, [of Mr. Evans' Dairyman's Manual,] will not probably object as authority, has said, (at least by implication,) that those stocks, [Sir James Pennyman's and Sir Wm. St. Quintin's,] came from Normandy. (See his article on the "History" of Short-horns, in the Trans. of the N. Y. State Agricultural Society, 1849.")

Had my words been quoted, I should have been content, certain that they would have contradicted the misconstruction of their meaning. I quote them:

"The ancient family of the Aislabies, which came into England from Normandy, with William the Conqueror, established themselves prior to 1300, at Aislabie, on the river Tees, in the county of Durham, and the manor, their estate, was called after the family. As early as 1600, the family was known to possess a most extraordinary tribe of cattle."

These words occur in an account of a particular tribe of Short-horns, first known in their history as being in the possession of the family of the Aislabies. I thought proper to say of this family, that they were Norman in extraction—had been centuries in England, and that after having been 300 years in Durham, they possessed an extraordinary tribe of cattle.

In noticing this account of mine, in the September No. of the Cultivator, 1850, Mr. Howard, then an editor of it, says: "the most natural inference from the tenor of the language would be, that they were Norman Cattle, brought into England by the Aislabies."

In a personal interview with Mr. Howard, I explained to him verbally what I meant, and supposed he would be just enough to himself to do me justice. This he never saw fit to do. And now, at the end of nearly two years, he, as a correspondent of the Cultivator, charges me with saying, ("at least by implication,) that those stocks, [St. Quintin's and Pennyman's] came from Normandy." My account did not mention St. Quintin or his cattle at all; stated that the Pennymans got their cattle of the Aislabies; made the cattle of the Aislabies to be Short-horns, and therefore, of necessity, made the cattle of the Pennymans to be Short-horns.

I do no not intervene in this altercation between Platanus and Mr. Evans, or as it now stands, Mr. Howard added. Who Platanus is, I know not. I read his article when it first appeared, and have not re-perused it. Whether he would receive me as authority, as Mr. Howard alleges, I cannot say.

If I am to be cited as authority, I ask that I may be quoted, that my words may speak for themselves, or my *known* meaning stated.

I hold that the Short-horns, when the COLLINGS commenced to breed, were, and still are, a pure and original race; were not indigenous to England, but have for centuries been there, as early, doubtless, as 900 or 1,000 years ago; that they are continental in their origin, and came from the region of country extending from Holland to Denmark, inclusive. *As a breed*, they are, and ever have been pure; *as a breed*, they never had Alderney or Norman blood mixed with them; although continental in origin, they have had no connection with the Short-horns of the continent since as early as 1600; and all Short-horns recorded in the Herd Book, are purely of that kind, except such as may possess the Scotch Galloway blood, introduced by CHARLES COLLING. These Scotch crossed ones constitute but a small portion of the whole of those recorded in the Herd Book.

All these points can be established by proof as conclusive as history ever affords for any of the world's facts. AMBROSE STEVENS.

Leached Ashes on Wheat.

EDS. CULTIVATOR—In the fall of 1850, I tried an experiment of putting leached ashes on wheat,—which convinced me that they were of great value on said crop. After I had my ground plowed which was intended for the reception of the seed, I hauled on the ashes broadcast, about one two horse wagon load to every four square rods. I served about half of the field the above way. Sowed on one bushel and three pecks of wheat. Dragged in the wheat on the unashed half of the field as as on the ashed half, by going over lengthwise twice with the common triangular harrow. Six or eight weeks after the wheat was up, the difference could be very easily detected. When harvest came, the result was, on the ashed part, clean straw, while the other was more or less struck with the rust; the berry more plump, and the ears longer. In fact the wheat was one third better where the leached ashes were applied. There are many potash makers in this country, who would thank the farmer for hauling the leached ashes out of their way. In some parts of the country they are purchased at from five to ten cents a bushel; and hauled eight and ten miles, and then applied with profit to crops. JOHN DIEHL. *Kagy settlement, Bristolville, Trumbull co., Ohio, Dec.* 31, 1851.

HUSSEY'S REAPER.—The London Chronicle, speaking of this powerful machine and its performance in Herefordshire in a field of clover, says, "The manner in which its resistless blades swept through this crop, was a matter of great astonishment. It might be compared to the sweeping of a strong wind over the surface of a lake, so rapid and comparatively effortless was its progress. * * A little incident which occurred, speaks volumes as to its efficiency. A Herculean figure in a smock frock, after earnestly contemplating the execution performed before his eyes, took his reaping hook and deliberately broke it over his kee, throwing the pieces away in despair."

New-York State Agricultural Society.

At the June meeting of the Executive Committee, the President, Mr. Delafield, and Mr. Lee, were appointed a committee to make arrangements for the TRIAL OF IMPLEMENTS, at Geneva, and to designate the day for its commencement; and E. P. Prentice of Albany, and George Geddes, of Onondaga, were added to the list of Judges for that occasion.

The time for the trial will be fixed as soon as the state of the crops will admit, and be announced in the public papers.

The following persons were appointed Delegates to the National Agricultural Convention, to be held at Washington city, on the 24th June:

Henry Wager, President, Oneida; James S. Wadsworth, Livingston; Lewis F. Allen, Erie; E. P. Prentice, Albany; John A. King, Queens; Francis Rotch, Otsego; J. M. Sherwood, Cayuga; J. P. Beekman, Columbia; Anthony Van Bergen, Greene; George Vail, Rensselaer; Lewis G. Morris, Westchester; Thomas Bell, New-York; Hon. J. A. McElwaine, Wyoming; Lyman B. Langworthy, Monroe; Wm. Kelly, Dutchess; Luther Tucker, Albany; Charles Lee, Yates; J. B. Burnet, Onondaga; E. Corning, jr., Albany; Hon. James Monroe, New-York; Hon. Elijah Risley, Chautauque; A. J. Downing, Orange; Winslow C. Watson, Essex; Maj. M. R. Patrick, Jefferson; Henry Holmes, Washington; B. P. Johnson, Albany.

APPOINTMENTS FOR THE STATE FAIR.

Theodore S. Faxton was appointed General Superintendent of the grounds, with charge of carriage entrance—John Butterfield, superintendent of small gates and buildings—Thomas Bell, of the Cattle department—J. B. Burnett, of the Horse—Lyman Sherwood, of the Sheep—Levi T. Marshall, of the Swine—E. E. Platt, of the Poultry—Silas D. Childs, of Floral Hall—R. S. Doty, of Manufacturer's Hall—David A. Lyon, of Mechanic's Hall—Israel Denio, Dairy Hall and samples of Grain—David Gray, Vegetable Tent—J. S. Peckham, of Machinery and Implements on the ground.

The Sheriff of Oneida county, John R. Jones, Esq., was appointed Marshall.

Exhibitions and Cattle Shows for 1852.

NATIONAL.

American Institute, New-York.—Exhibition opens at Castle Garden, Oct. 5. Cattle Show, Oct. 19, 20, 21.

American Pomological Congress.—Commences its session at Philadelphia, Sept. 13.

STATE.

New-York—At Utica, September 7, 8, 9, 10. Trial of Reapers, Mowing Machines, &c., at Geneva, about the middle of July.

Ohio—At Cleveland,..... Sept. 15, 16, 17
Michigan—At Detroit,..... Sept. 22, 23, 24
Indiana—At —— ..... Oct. 19
Pennsylvania—At Lancaster,..... Oct. 20, 21, 22
Georgia—At Macon,..... Oct. 19 to 23
Maryland—At Baltimore,..... Oct. 26, 27, 28, 29
Wisconsin—At Milwaukie,..... Oct. 6, 7, 8
Vermont—At Rutland,..... Sept. 1, 2, 3
Canada West—At Toronto,..... Sept. 21, 22, 23, 24
Rhode Island—At Providence,..... Sept. 15, 16, 17

COUNTY SHOWS—NEW-YORK.

Clinton—Keeseville..... Sept. 22, 23
Cortland—Cortland Village,..... Sept. 15, 16
Genesee—Bergen,..... Oct. 6, 7
Herkimer—Herkimer,..... Sept. 28, 29
Jefferson—Watertown,..... Sept. 16, 17
Madison—Eaton,..... Sept. 22, 23
Otsego—Morris,..... Sept. 22, 23
Putnam—Carmel,..... Oct. 5, 6
Wayne—This county holds two fairs—one at Wolcot,..... Sept. 21, 22
The other at Palmyra,..... Sept. 28, 29
Saratoga—Mechanicsville,..... Sept. 15, 16, 17
Rensselaer—Troy,..... Sept. 22, 23, 24
Essex— —— ..... Sept. 20, 21, 22
Suffolk—Huntington..... Sept. 22
Seneca—Waterloo,..... Oct. 14, 15
Monroe—Rochester,..... Sept. 29, 30
Ontario—Canandaigua,..... Sept. 29, 30

TOWN SOCIETIES.

East Bloomfield,..... Oct. 5, 6
Galen,..... July 3

MASSACHUSETTS.

Berkshire—Pittsfield,..... Oct. 6, 7

CONNECTICUT.

Middlesex—Middletown,..... Oct. 6, 7, 8

VERMONT.

Franklin—St. Albans..... Sept. 8, 9
Windham—Fayettville,..... Sept. 15, 16

NEW-JERSEY.

Burlington—Mount Holly,..... Oct. 6

PENNSYLVANIA.

Berks—Reading..... Oct. 1
Bucks—Newtown,..... Oct. 7, 8
Montgomery—Norristown,.....
Philadelphia—Near Philadelphia,..... Sept. 30, and Oct. 1
Susquehanna—Montrose..... Oct. 6
Northumberland—Northumberland,..... Oct. 7, 8

OHIO.

Cuyahoga—Cleveland,..... Oct. 6, 7

MICHIGAN.

Lenawee—Adrian,..... Oct. 6, 7

Mr. Morris' Cattle Sale.

Mr. MORRIS' third annual sale of improved breeds of stock, took place at Fordham, on the 9th of June, agreeably to advertisement. There was a large attendance of company from various parts of the country, and the prices obtained, show that the interest in improved stock was well sustained. We annex a list of the sales.

Short-horn Cows, Heifers, and Calves.

1.	Rose, 6 years old, Gen. Cadwallader, Penn.,	$80
2.	Fan, 9 years, Gen. Cadwallader,	100
3.	Woodbine 2d, 4 years, do	105
4.	Pride, 17 years, Mr. Firmstone, Easton, Pa.,	60
5.	Jane, 16 years, Mr. Taber, Dutchess co.,	55
6.	Woodbine, 16 years, A. Van Ingen, Jr., N. J.,	50
7.	Alice, 2 years, Mr. Schellingford,	80
8.	Chinchilla, 2 years, Mr. Firmstone, Easton, Pa.,	85
9.	Zepher, 11 months, J. D. Thorpe, Albany,	90
10.	Susy Walker, 3 months, Mr. Simpson,	50
11.	Agnes, 3 months, J. D. Thorpe,	120
12.	Miss Spencer, 6 years, (¼ Dutch) Mr. Johnson, L. I.,	130
13.	Miss Spencer 2d, 3 months, (¼ Dutch,) Mr. Wilmerding,	90

Short-horn Bulls.

14.	Lord Eryholme 2d, 9 months, J. D. Thorpe,	270
15.	Kossuth, 6 months, Mr. Colegrove,	155
16.	Gladiator, 2 months, Mr. Hoopes, Chester Co., Pa,	150
17.	Cato, 22 months, Mr. Firmstone, Easton, Pa.,	180
18.	Ajax, 2½ months, Mr. Thorndike, Mass.,	55
19.	Hercules, 2 months, Mr. Cooper,	25
20.	Orion, 1 month, Mr. Rives,	30
21.	Medley 3d, 2 months, Mr. Keim, Penn.,	50

Lamartine rented for one year to Calvin Fletcher, Indianapolis, for $200.

Devons.

22.	Gazelle, 18 months, Mr. Wainwright, Dutchess co.,	90
23.	Belle, 5 months, Mr. Wilmerding,	55
24.	Nell, 2 months, Gen. Cadwallader, Penn.,	35
25.	Fairy, 1¼ month, do	35

Ayrshires.

26.	Rose, 4 years, Mr. Firmstone, Easton, Pa.,	125
27.	Effie Deans, 3 years, Mr. Maitland,	80
28.	Miss Chrystie, Mr. Haines,	65
29.	Highland Mary, 2 years, Mr. Minot,	70
30.	Caledondia, 2 years, Mr. Maycock,	85
31.	Jessie, 2 years, Mr. Schellingford,	65
32.	Bessie Bell, 2 years, Mr. Maitland,	100
33.	Mary Grey, 2 years, Mr. Simpson,	80
34.	Nannie, 2 years, Mr. Minot,	80
35.	Jennie Deans, 2 years, Mr. Wilmerding,	80
36.	Bonne Lassie, 1 year, Mr. Schellingford,	55
37.	Maggie, 1 year, Mr. Simpson,	30
38.	Lucy, 1 year, Mr. Clift, Putnam co.,	25
39.	Lilias, 1 year, do	25
40.	Fan, 1 year, Gen. Cadwallader,	55
41.	Sally, 1 year, Mr. Wilmerding,	25
42.	Rose of Ayr, 2 weeks, Mr. Harvey,	12.50
43.	Robert Burns, 2 years, Mr. Russell,	90
44.	Sir Walter Scott, 9 months, Thomas Evans,	80

SOUTH-DOWN SHEEP.—Three yearling Rams were rented for one season, at $37.50 each. Two yearling Rams, were sold at $35 each—one to Mr. Clements, Philadelphia, and the other to Thomas Beekman of Columbia Co. Two ewes to L. Spencer, at $15 each—two to Mr. Cadwallader, $12.50 each—one ewe lamb to do $7.50—three to Mr. Stone at $8 each—one ram lamb, to do. $6.

SUFFOLK PIGS.—Five boars were sold, at $40, $20, $15, $10, and $30. Nine sows at prices varying from $20 to $77.50. Nine pair of pigs, from $8 to $25 per pair.

ESSEX.—Two pairs pigs brought $32.50 each, and a third pair, $30.

The Horticulturist for June.

We cannot perhaps, do our readers a more acceptable service, than to present occasionally a brief abstract of the successive numbers of this magazine, unrivalled as it is for the amount of its horticultural facts, experiments, and intelligence—especially if it should induce those who do not possess the privilege of access to its pages, to become subscribers.

AMERICAN VERSUS BRITISH HORTICULTURE.—The *leader* points out vividly the distinction between the two. The editor states that our practical gardening is almost wholly in the hands of foreigners—that not three per cent of all the working gardeners in the United States, are either native or naturalized citizens—most being Irish, a few Scotch, and fewer still English and Germans. As a consequence, their practice is not adapted to our climate—failures result—and employers are discouraged. They cannot readily change the notions in which they have been educated. They have been from childhood led to regard as the great evils of the art, "damp, wet, want of sunshine, canker," while the great causes of failure with us, are "drouth, hot sunshine, great stimulus to growth, and blights and diseases resulting from sudden checks." As an example of bad adaptation, a large vinery, 200 feet long, was erected in one of our cities in the middle states,—under a warm bank, facing the sun, with a full exposure, just as it would have been placed in Britain, without provision for either sufficient ventilation or water. The result was perfectly natural. "The vines were burnt up with light and heat, and starved for air and water." "We pointed out how the same money, applied in building a span-roofed house, running *north and south*, instead of east and west, and treated by a person who would open his eyes to the fact, that he was no longer gardening in the old, but in the new world,—would have given *tons* of grapes, where only pounds had been obtained."

LIQUID FERTILLIZER FOR CHOICE PLANTS.—A correspondent states he has found a very valuable fertilizer in the solution of *sulphate of ammonia*, half an ounce being dissolved in a gallon of water. This, weak as it is, will kill the plants if applied daily—they are therefore only watered once a week with it, and once each other day with water. Applied to *strawberries*, they grow luxuriantly, twice as large as where unwatered, and much larger than where watered with water alone. *Peas* were a week earlier, and much stronger in leaf and pod. Sickly *dwarf pear trees* were rendered luxuriant. *Dahlias* and *Fuchsias* grew with great vigor, and flowered brilliantly. These experiments are worthy of repetition, although experiments with specific manures often utterly fail, with a variation in soils and circumstances.

SEVERE WINTER AND RARE EVERGREENS.—H. W. Sargent, of Fishkill, N. Y., gives a statement of the effects of the past severe winter on his collection of rare evergreens. Some species, as for example the Deodar, which for several previous years, had stood uninjured, were considerably browned, the thermometer sinking to 13° below zero. Among those evergreens which past results induce him to consider as "fairly hardy," that is, by the time they are three to five years old, are the following:—Himmalayan Spruce, Pinus excelsa, Cedar of Lebanon, Japan Cedar, (on its own roots,) Stone Pine, Cephalonian Fir.

INSECTS AND PEAR BLIGHT.—Prof. Turner of Illinois, thinks he has discovered the cause of the western pear and apple blight. He finds little white specks on all parts of the tree—as every one has observed—but some of these are larger than the rest. appearing like a "mite of mould" on the bark. These he finds, by the use of the microscope, to contain "infinitessimal" eggs in vast numbers, which subsequently hatch into microscopic insects. They appear to exude a poison, which destroys the bark beneath, leaving small holes like the prick of an awl, and are in short the cause of blight, that is, in other words, death. As many close observers, with powerful microscopes, have never discovered these punctures in diseased trees, we may fairly infer, that if these insects cause the death of Prof. Turner's trees, they do not of most other peoples. He has tried ineffectually to de-

stroy them with "soap, ley, ashes, lime, copperas, sulphur, plaster, tobacco, spirits turpentine, salt, coal-tar, charcoal, assafætida, and a whole apothecary shop of other drugs." He calls for the observations and experiments of others. He proposes for this insect the elegant name of "pear devil."

PEELING THE EPIRDERMIS OF THE CHERRY TREE.—Some of our readers know very well the disaster which often befalls cherry trees in the west, by the bursting of the bark. Prof. Turner says that since he adopted the practice of peeling off the epidermis, or thin dead exterior skin of the bark, he has not lost a tree, except a small one killed by winter, from peeling in autumn.

CULTURE OF THE CALCEOLARIA.—An excellent practical article on the culture of this interesting ornament, by which the finest variegated plants may be obtained "four feet in diameter with over a hundred flower-stems," is too minute and extended for even a brief outline. We copy, however, the following hints, as they apply well to sowing all small flower-seeds:—"Cover very slightly, and remember never to allow the surface of the soil to become dry. Cover it over thinly with moss, to prevent evaporation. There is generally great difficulty complained of in getting the seed up. It is generally sown and watered—and watered again when dry—and so on, and probably never comes up at all. The simple fact is, the seed when first damp begins to germinate, and if it is then allowed to become dry, it is of course, killed in the germ. Keeping it constantly damp will obviate this."

TRANSPLANTING EVERGREENS.—A good article on this subject urges (what we have long since endeavored to enforce) "*that the roots, while out of the ground, should be kept moist—that they should never for a moment even, become dried during the proceess of transplanting.*" Hence a rainy day is recommended, in all cases, and especially where the roots are denuded. A few experiments are given. A long screen of Arborvitæ were set out in a stormy week, with the sod on. Six were set aside in a tub of water—four were left exposed to a drying wind. These four only died, out of two hundred and ten. The six, after three weeks neglect in the water, all survived. Again, fifty Norway Spruces, were set out in a moist day. One, by mistake, was left, and received a few hours of sunshine—this only died. [We have succeeded well with some sorts, brought long distances, by insisting on the instant immersion of the roots in water, as soon as up—packing in wet moss, kept soaked with water—the roots plunged in mud as soon as received, and *laid in*—and again mudded, and the earth well settled with water, when transplanted. Removing *plenty* of earth on the roots—an infallible mode,—besides preserving all the small fibres, keeps the roots constantly moist. EDS. CULT.]

VINES FOR VERANDAS.—The *Prairie Roses* are recommended as best for this purpose—among which the Linnæan Hill Beauty, (light rosy blush,) Triumphant, (lively red,) Baltimore Belle, (white,) and Queen of Prairies, (rosy red,) all very double, and profuse bloomers, are highly commended. They grow rapidly, and will cover a veranda the second season. The Chinese Wistaria, the Chinese Honeysuckle, and the Dutchman's Pipe, are also highly approved. The common sweet-scented honeysuckle is objected to on account of insects.

SALT FOR QUINCES.—A top dressing of two quarts for each tree, applied in spring, dissolves slowly, without injury to the tree, improving both tree and fruit.

TOMATOES.—A Schenectady correspondent prunes off every few days, all the side shoots of his plants, leaving four main branches, which are staked up, and which grow seven to nine feet in a season in consequence. He states that he raises earlier, better, and more tomatoes, than by any other mode.

ANSWERS TO INQUIRIES.

Husk Beds—Cotton Mattrasses.

[The following has been kindly furnished by an intelligent female friend, in answer to the inquiry of our Tennessee correspondent.]

Take the *inner* husks at *early* husking time, before there is any danger of mildew from autumn rains—and strip them through once or twice with an old three pronged dining fork. Ten bushels will yield enough to make a good bed. Twenty bushels will not be too much for a good thick mattrass. But I much prefer a simple bed, as they can be so easily renewed each season, by the addition of one or two bushels of fresh husks. When these cannot be obtained, I wash the husks and dry them in the sun, which renders them sweet and free from dust.

Cotton mattrasses may be made by placing the tick in a common quilting frame, in the same manner as we do a quilt; then laying on cotton batting with great care, so as not to have any hard, uneven spots in it,—then tack it through, with a packing needle and some strong carpet warp, in spaces of eight or ten inches apart. Such an one, *well* made, will continue good for at least five years, and then bring nearly quarter the original cost, as old rags.

I have recently heard of another kind of domestic manufacture in the form of *splint* beds, but not having sufficient knowledge of them, to write definitely on the subject, I will defer it until the next number of the Cultivator. E. S. *Macedon, 5th mo. 22, 1852.*

Lice on Colts.

I should like to have you tell me through the Cultivator, what will kill lice on colts, and oblige GEO. M. BARBER. *New-Hartford, Conn.*

It is said that horses become lousy from hens, when the roost is too near the stable. It is worthy of inquiry whether they are infested by other species of lice—requiring different treatment. A skillful agricultural friend informs us that he has found two remedies effectual for this difficulty—the first, washing the animal in a decoction of tobacco, which needs repeating two or three times to be complete; and secondly, rubbing dryashes all through the hair, and then turning the animal out in a rain storm—this is a rather sharp remedy, destroying a part of the hair. Cole, in his "Diseases of Animals," says that horses badly infested have been at once relieved by soaking all over in "new rum." The removal of all litter which may contain lice, whitewashing walls, and brushing, washing and oiling harness, must not be overlooked, in connection with the remedies.

Grub in Cattle—Garget.

1. What causes the grub in the backs of cattle. 2. Is it injurious to the cattle. 3. What will prevent it? I find it more likely to be on cattle of thin flesh than in fat cattle—why is this?

4. What will cure the garget in cows—can they be cured after having been affected a year, so as to be good milkers again? J. P. HOLT. *Lyme, N. H.*

The grub is caused by the gad-fly, which deposits its

eggs during summer, in the hide, along the back of cattle. The larva shows itself conspicuously early the following spring. We cannot say what amount of injury it causes—under ordinary circumstances, farmers generally do not regard it as a serious evil, and do nothing for its removal. It is said that the respiratory organs of the grub are next the opening in the skin—if so, a few drops of oil applied to the spot would close their breathing holes, and kill them at once. Strong brine has been recommended.

In mild cases of garget, continued bathing in warm water has been found useful—when more severe, a hot local stimulant should be added, as red-pepper or alcohol —or a decoction of smart-weed or *Polygonum punctatum*. In very severe cases, (in which however we have had no experience,) bleeding and physic is recommended, in connexion with light food and cooling drinks. An ounce of salt-petre, or two ounces in severe cases, has also been recommended. For further information as to the above inquiries, we must refer to such of our correspondents as may be able to furnish it.

Information Wanted.

How to Preserve Manure.—Much has been said and written on the subject of manure cellars, and the manufacture of manure, yet we are ignorant how to preserve it; as the farmer can only manure his land at certain periods of the year, can you or any of your numerous correspondents give information how to preserve manure For instance, I clean out my manure cellar, about the middle of September. I have heretofore found that from that time until the weather becomes too cold, the manure accumulated by the daily cleanings of the stables, mixing horse and cattle manure as it is thrown into the cellar, using nothing but wheat and rye straw for litter, will in six or eight weeks become fit for use, but as that time will be an improper one for hauling manure on land, how can I preserve it until the middle of April, without diminishing in quantity or quality. Or, I have just cleaned out my manure cellar, and from experience I know that the manure treated as above described, will, during summer, in about four weeks, sufficiently rot, to be used, but as I cannot manure any land before the middle of August, how shall I treat my manure that I may have by that time, the greatest quantity and the best quality on hand. K.

Stall-watering Cattle.—Will you or some of your correspondents inform me of the best method of watering cattle in their stalls by running stream? O. L.

Water in Cattle Yards.—The old system of allowing cattle to run at large during the winter, in search of water, is not to be thought of in comparison with the convenience and economy of a supply of pure water in the enclosures where stock is fed. Less food would be required by the animals, and the saving in manure alone would soon pay for the necessary outlay. Mr. S. M. Dorr, of Ghent, N. Y., wishes to ascertain some means of obviating the following difficulty. In conveying water from a running stream by a lead pipe of half an inch calibre, some forty rods to a cattle yard, whenever the stream is muddy from rain, the mud is forced through the copper strainer into the pipe, completely stopping the passage of the water. When this occurs in winter there is danger of the freezing of the water. A forcing pump has been used to clear the pipe. How can this be prevented?

Insect on Currant Bushes.—Three years ago, our *currant bushes* were attacked by a small bright green caterpillar, from ¼ to ¾ of an inch in length; which devours every leaf; and if it does not kill, greatly weakens the bush. At first it was only on a few old trees, which from the great abundance of fruit we always had, we thought little of; but now they have increased so much, that last year we had not a gallon of fruit to eat. The only remedy I know of is hand picking, which is very tedious; can you tell me of a more expeditious plan? I have tried *tobacco, plaster, and lime*, without its having any sensible effect. J. W. Lemoine. *Kingston, Canada West, April* 24, 1852.

Pump Logs.—I would inquire when is the best time to fell pine timber for pump logs? I use logs in preference to pipe, as the water in this vicinity is hard, and the pipe gets stopped with slime. A. B. Abel. *Glenn, N. Y., April* 17, 1852.

Management of Bees.—I want information as to the keeping and management of bees. Do you know of any plan for feeding bees, so as to make them produce more honey than by the old way of gathering it from flowers? I noticed in the January number of the present volume, a long article by some one, saying how nice it could be put up in boxes by the bees themselves, and scented to suit one's taste. Are you knowing to any compound that will make better honey than that which is made from flowers? Please give us some instructions as to the constructing of a cheap bee house. I want all the instruction necessary for a new beginner. Can they be kept in a house all together and not swarm at all? If so, please give us a plan. A Youth. *Utica, April* 15, 1852.

Should Tin Roofs be Painted.—It is said, that if tin roofs are painted, they will not last so long as if left bright. If some of your readers can answer the question by having experienced it, it will be a favor to the public. D. Tomlinson. *Schenectady, June* 7, 1851.

Eds. Cultivator—Inclosed I send you a specimen of grass that grows in small quantities in our door-yard. I should like to know the name of it, and whether it is a good kind for hay. The seed was brought here by my grandfather from Virginia, some 40 years ago. Please tell me where I can get the seed and the price per bushel. H. B. H. *Bristolville, Ohio, June* 8, 1852.

The grass enclosed with the above, is the orchard grass, *Dactylis glomerata*, which is generally considered better for pasturage than mowing. We shall be glad to receive the opinion of its value, from any of our readers who have grown it.

Rhubarb.—Will some of your readers be kind enough to inform me through the columns of your periodical, if the report is true that I have heard, of the *leaves* of the Rhubarb or Pie plant of our gardens, being poisonous, and much oblige a subscriber. J. C. C. *Rahway, May* 15, 1852.

NEW PUBLICATIONS.

THE TRANSACTIONS OF THE ROYAL HAWAIIAN AG. SOCIETY, at its first annual meeting in August, 1851—Vol. I, No. 2. Honolulu: Printed at the Government Press, by Henry M. Whitney.

We are indebted to our esteemed correspondent at the Sandwich Islands, W. CHAMBERLAIN, Esq., for a copy of the above work. It is a handsomely printed pamphlet of 126 pages, and contains, besides the annual address of the Hon. Luther Severance, all the usual reports made at our Cattle Shows, together with a variety of papers relating to the rural economy of the Island—the whole in a style which would, in every respect, be creditable to the best agricultural societies of our country. We shall be greatly obliged to our correspondent for the first number, which we have never seen.

THE PESTS OF THE FARM, with instructions for their extirpation. By H. D. Richardson. C. M. Saxton: New-York.

This is another of the series of SAXTON'S rural hand books, and will be eagerly sought after by those who have had their crops destroyed by four-footed beasts, fowls, and creeping things. It is neatly printed and for sale at 25 cents.

THE FARMER'S CYCLOPEDIA OF MODERN AGRICULTURE. By Rev. John L. Blake, D. D. C. M. Saxton: New-York.

This volume is designed to be a book for family reference, containing information on topics relating to rural life and domestic economy. The work is peculiarly valuable from the fact that it will aid the farmer in understanding the terms used in scientific agriculture. The definitions and explanations of words and phrases, are carefully and fully given, and as a whole constitutes an excellent household authority. Price, $1,50.

GRAHAM'S AMERICAN MONTHLY MAGAZINE. Published at $3 a year. By Geo. R. Graham: Philadelphia.

It really does one good to look at the illustrations and execution of this magazine. The June number is decidedly in advance of any previous issue. As an ornament to the parlor table, this magazine is well designed, and its matter is various enough to suit the tastes of all classes. We are glad to observe that the insipid flashy articles, which formerly burdened this class of monthlies, are giving place to more solid and substantial reading. It is evidence that the taste of the community is improving.

GRECIAN ANTIQUITIES. By Charles Anthon, L. L. D. Harper & Brothers: New-York.

A full description of the geography of ancient Greece, with the manners, customs, and institutions of its several states, are given in this volume, in a style corresponding with Prof. Anthon's well known works. Though more particularly designed for the student, it will interest the general reader; for the research of years has failed to divest Grecian literature of its charm or dispel the strange fascination which their orators and poets, their festivals and games, their government and religion, have for the modern mind.

HARRISON'S LATIN GRAMMAR. Harper & Brothers: New-York.

This work is a profound exposition of the laws of the Latin language, suited to the more advanced student. It evinces deep and careful research, and great familiarity with the ancient classics. The author aims to reduce, as far as possible, the rules of Syntax to fixed and general principles, and to make the study of grammar rational, logical and philosophical. It is a valuable addition to works on philology.

NOTES FOR THE MONTH.

ACKNOWLEDGMENTS.—Communications have been received, during the past month, from J. C., J., J. T. Andrews, Henry Hitchcock, T. B. Arden, C. H. Powell, Farmer's Wife, T. L. Hart, A. M. K., Ambrose Stevens, D. Tomlinson, S. Clark, Jr., S. W. Johnson, Gurdon Evans, L. V. W.

BOOKS, PAMPHLETS, &c., have been received as follows:—Proceedings of Clinton Co. Ag. Society, from WILLETS KEESE.——Constitution, Premium List, &c. of the Lenawee (Mich.) Ag. Society, from T. M. COOLEY, Sec'y.——Seed of the "New Evergreen Sweet Corn," from THOMAS HANCOCK, Burlington, N. J.——Premium List, Constitution, &c. of the Putnam Co. Ag. Society, from H. C. WILSON, Esq. Sec'y.

INSECT ON THE PLUM.—An esteemed correspondent at Springfield, Otsego co., has sent us a specimen of an insect and of a portion of the bark of a plum tree, containing a deposit of its eggs. The eggs are in compactly filled rows, beneath a single slit through the epidermis. The insect was lost, and we cannot speak of its character. This cannot be the cause of the black knot, as suggested by our correspondent, as in numerous cases, the most rigid microscopic examination of the black knot, has failed to reveal any indications of external or local injury—besides which we have often observed deposits of eggs, not dissimilar, but larger, both in the plum and cherry, that produced no effect whatever, except small mechanical injury. Indeed it is rare that insects produce any other result. We hope our correspoddent will favor us with the results of future observations.

CORRECTION.—In our May number, page 183, we published, from the Family Visitor, an analysis of the strawberry, by B. Kirtland—and in our April number, p. 132. an analysis of the Sweet Potato, from the same source. It appears that there was an error in both of these analyses, which is thus corrected by Mr. Kirtland—"I noticed an error of importance in the publication of my analysis of the Strawberry and Sweet Potato, in your paper. In the analysis of the strawberry, where it reads Perphosphate of Lime, it should read Lime only; and in the analysis of the Sweet Potato, where it reads Phosphate of Lime, of Magnesia, of Potash—it should read only Lime, Magnesia, Potash. Where it reads Sand and Silica, it should read Silica only.

NATIONAL AG. CONVENTION.—We received, after our last number had gone to press, a circular, calling a National Agricultural Convention at Washington city, on the 24th of June, signed by the several presidents of the different State Ag. Societies of the Union. As this number goes to press before the convention is organised, we can only now state the objects for which it is called, which are stated in the circular to be as follows:

"To organize a National Agricultural Society, to which the various agricultural societies may be auxiliary; to consult together upon the general good, and to establish, by this society, or such other means as the convention may devise, a more cordial and widely extended intercourse betwen agriculturists in our own country and in other lands; to create additional facilities for the acquisition and diffusion of knowledge, by books, journals,

seeds and other objects of interest to the American farmer and gardener; and to act on such other matters pertaining to the advancement of agriculture as the wisdom of the convention may judge appropriate."

CHERRY TREES AT MIDSUMMER.—Many young cherry trees have been set out the past spring, and have already commenced growth. But if left with hard exposed soil about them, a large portion will die before the close of summer, or during the hot, dry weather. If watered, as the work is usually done, the surface will become hardened and crusted, the roots not reached, and some trees killed by the very process intended to save them. An acquaintance, who set out 50 cherry trees a few years since, informed us that he watered about a third, every one of which died—most of the others lived. If it becomes necessary to apply water, the earth should be removed down to the roots, and replaced when the water is poured in. But it is far better to *keep* the ground constantly and moderately moist, than to flood it after it becomes dry. This is completely effected by mulching. Spread round the young cherry trees early in summer, old straw, spoiled hay, mown weeds, or any similar material, to a depth of six compact inches, and a few feet in diameter, and they will flourish and grow through the whole season.

MR. MORRIS' SALE.—Since the page of this number, containing the account of this sale, was stereotyped, we have received from Mr. MORRIS a more full and detailed account, from which it appears that

7	Short-horn cows averaged,	$81 28	$590
2	do heifers,	82 50	165
4	do heifer calves,	87 50	350
1	do bull,		180
7	do bull calves,	105 00	735
1	do bull rented,		200
1	Devon heifer and 3 calves,	53 75	215
19	Ayrshires,	64 07	1,217 50
38	Pigs, Suffolk and Essex,	11 56¼	639 50
11	South-Down Sheep,	14 22	156 50
3	do rams, rented for one season,		112 50
	Total,		$4,561 00

HEAVY CATTLE.—W. H. Worrall of Poughkeepsie, informs us that he has two five-year-olds, one a steer and the other a heifer, "which their numerous visitors have named Kossuth and Jenny Lind," whose live weight is upwards of 3,000 lbs. each. "If any one in the world," says Mr. W., "will produce as fine a heifer, of the same age and size of bone, I will bind myself to pay $1,000 for her on delivery."

MCCORMICK'S REAPER.—A good deal of interest has been excited by the application of Mr. McCormick to Congress, for a renewal of his patent of 1834, and the report of a bill in the U. S. Senate, in his favor, which, it is said, "covers every other grain reaper not only, but every mowing machine in use—a most monstrous claim," says one of our correspondents, "which, if successful, will render not only the manufacturers of these implements, but the whole farming community tributary to him." We have not seen the bill alluded to, and know nothing of the merits of the case, further than what is stated in the remonstrances sent us. Congress will, we doubt not, be careful, in doing justice to Mr. McCormick, not to do injustice to other inventors, or the manufacturing or farming interest.

NORTH CAROLINA.—We are indebted to JAS. SLOAN, Esq., of Greensboro, for a copy of the proceedings of a meeting held at Guilford County Court House, in February last, at which an Ag. Society for the county was organised, constitution and bye-laws adopted, officers elected, and an able and appropriate address delivered by RALPH GORRELL, Esq. Wilson S. Hill is President of the Society, and James Sloan, Cor. Sec'y.

RE-TOPPING YOUNG APPLE TREES.—A good many cultivators set out seedling apple trees, in order to do their own grafting. Generally, it is better to buy at once good grafted trees. Others wish to change the tops of worthless sorts which have been before grafted. Both lose two or three years by the cutting-back which it is usually necessary to give them before setting the grafts. An easier way, with scarcely any loss of time, is to change the tops by *budding*. Trees seven or eight feet high, with heads, may receive six or eight buds, distributed evenly throughout, and older trees, (not over two or three inches in diameter,) a proportionately larger number. The next spring, the shoots are cut back to be buds, (instead of lopping heavy limbs as in grafting,) and the original form and nearly the original size of the head retained. The buds should be set soon after midsummer.

FRUIT DRYING HOUSE.—A correspondent of the Michigan Farmer has constructed a fruit-drying house, which he says "has succeeded beyond his expectations." It is 12 feet square, with eight feet posts, lathed and plastered, with an air-tight sheet-iron stove in the center. The screens, 24 in number, are two feet by five, and are arranged about nine inches one above another, on two sides of the apartment. The fruit dries twice as fast above as below. Three days is the usual time required. Fruit thus dried, it is asserted, is of much finer quality than any dried in the open air. The whole cost was $45. Ventilation is not mentioned, but we presume it is amply secured, as it is indispensible to the escape of the hot moist air, which would otherwise cause speedy rotting.

FLAT TURNEPS ON HEAVY SOILS.—Many are aware of the difficulty in attempting to raise a crop of flat turneps on a heavy or clayey soil. We have known complete success to result from the following practice: Spread over the piece of ground intended for the turneps, several inches or a foot of old straw, fine brush, and whatever else of a similar combustible character may be at hand—burn these, and sow the turneps without disturbing the soil much—a good crop will be the result. Whether the coat of fresh ashes—the slight burning which the clay receives—the destruction of insects and their eggs—or the repulsive effect to the turnep fly,—has the greatest favorable influence, or whether all operate together, we must leave for others to decide—we only know the result.

DRYING TOMATOES.—The Ohio Cultivator says, (early last summer,) "We ate some very fine tomatoes not long since, dried in the following manner. Fruit fully ripe, was scalded, strained through a seive, slowly cooked half an hour, spread on clean plates, and dried in an oven, the whole process requiring about two days before the fruit was ready to pack away."

KOSSUTH.—At the Annual Meeting of the State Agricultural Society, a resolution was adopted instructing the Executive Committee to present to Gov. KOSSUTH the Medal and Transactions of the Society, as an humble token of the appreciation of the Society of his patriotic and republican principles, and of their desire that his country may be permitted to enjoy the same privileges guarantied to us by our free institutions.

The President and Secretary of the Society called upon Gov. KOSSUTH on his arrival in the city, to ascertain his pleasure in relation to the presentation, as designed by the Society, and were informed that it would give him great pleasure, on his return from Niagara Falls, to meet them at the Society's rooms, which he much desired to visit, and examine the collection of implements, seeds, &c., which he had been informed the Society had collected and arranged.

On Saturday, the 5th of June, Gov. KOSSUTH, and Mrs. KOSSUTH, Col. Pulzky, and Mrs. Pulzky, Capt. Kalapsza and Capt. Frecheneh, were introduced by Mayor PERRY to the officers and members of the Society present at their rooms.

Mr. JOHNSON, Secretary of the Society, in the absence of the President, Mr. Wager, who was unexpectedly called from the city, addressed Gov. KOSSUTH on presenting him the gold Medal and Transactions of the Society. He remarked that, as the representative of the Society, it gave him great pleasure in being permitted to present him the gold medal of the Society and a complete set of its Transactions; and he indulged the hope that Hungary might soon be in the enjoyment of those privileges guarantied to us by our free institutions.

Gov. KOSSUTH made a brief, and, as always the case with him, most appropriate reply, and returned his most cordial thanks to the society and to its members present, for the gratifying occasion which had so unexpectedly been presented, to speak of his country in that relation which was dear to his heart.

The Governor and his attendants spent nearly two hours in the examination of the museum—and made particular inquiries in relation to the implements, seeds, &c., which were shown by the secretary of the society.

AGRICULTURAL JOURNALS.—*The Green Mountain Culturist*, is the title of a new dollar monthly, just commenced at Middlebury, Vt., by D. R. BASSETT & Co. The first number affords promise of an excellent work.

The Wool-Grower, heretofore published at Buffalo, by T. C. PETERS, has been transferred to D. D. T. MOORE, editor Rural New-Yorker, by whom it will hereafter be published, at Rochester. This arrangement will add materially to the interest and value of the work. as besides the continued labors of Mr. PETERS, it will have the benefits of the experience and energy of Mr. MOORE. Terms, 50 cents.

The New Era, is the title of a weekly journal recently started at Goldsboro', N. C., by ROBINSON, MURPHY & Co.. a considerable portion of which is devoted, in a most efficient manner, to the cause of Agricultural improvement.

Good character is above all things else.
Never listen to loose or idle conversation.
Have no very intimate friends.

Virginia Land for Sale.

A NUMBER of tracts lying in the counties around Lynchburg, and varying from one hundred to two thousand acres,—these lands contain a fine close red subsoil and can be brought to any state of fertility the cultivator may wish. Prices from $3 to $15 per acre. Very near town and more distant, several large tracts of mountain land at prices from 50 cents to $2 per acre. BENJ. WILKES,
Lynchburg, July 1, 1852—1t.* Land Agent.

Bickford and Huffman's Celebrated Grain Drill.

THIS excellent machine has been greatly improved, and double the usual number has been sold during the past year, without supplying the demand; and in *all cases* they have given perfect satisfaction. ☞ *Of the great number sold, not one has been returned*, although each is warranted to sow all kinds of grain with accuracy, to suit the purchaser, and to be made in a workmanlike manner.

Several years experience, and increased facilities for their manufacture, enables us to offer them with confidence as the best grain drill in use. The grain is distributed with great accuracy and precision, and in any desired quantity, by means of different sized gear-wheels. We manufacture them with drill tubes, either in single or double rows, to suit purchasers—when in double rows, the front row is several inches forward of the back row, (sowing the grain in rows seven inches apart,) facilitating the passage of the tubes among stones and clods. We will make them to order, if desired, with tubes at any required distance apart.

Purchasers ordering Drills will please state distinctly the kind they prefer. Orders will be promptly attended to, and should be sent early, directed either to "*Bickford & Huffman, Macedon, Wayne Co. N. Y.*," or to

Daniel Supplee, Dundee, N. Y.	Col. J. M. Sherwood, Auburn, N. Y.
Alfred Hale, Alloway. do	Waterman & Jackson, Vienna, N. Y.
H. W. Levanway, Lock Berlin, N. Y.	David Vervalin, Poughkeepsie, N. Y.
C. L. Marsh, Sparta, N. Y.	James H. Glass, Geneseo. N. Y.
Amos Willetts, Aurora, N, Y.	J. H. Butterfield, Utica, Mich.
John King, Genoa, do	B. B. Dexter, Batavia, Ill.
John C. Hall, Farmersville, N.Y.	Abner Wing, Geneva, Wis.
McLallen & Hazler, Trumansburgh, N. Y.	

PRICES OF DRILLS.—For 7 tube drills, $65; 9 tube drills, $75, delivered at canal or railway. July 1—1t.

The Saturday Evening Post.

THE CURSE OF CLIFTON: A TALE OF EXPIATION AND REDEMPTION, by Mrs. E. D. E. N. SOUTHWORTH, author of "The Deserted Wife," "Shannondale," "The Discarded Daughter," &c.

Such is the title of a new novelette about being commenced in the Saturday Evening Post, of Philadelphia, by that gifted writer Mrs. SOUTHWORTH.

Single subscriptions $2 a year—4 copies $5—9 copies $10—21 copies $20. Specimen copies sent gratis. Address post-paid,
DEACON & PETERSON,
July 1—1t. No. 66 South Third st., Philadelphia.

New and Important Insurance.

Northern N. York Live Stock Ins. Co., Plattsburgh, N. Y.

INCORPORATED by the Legislature of the State of New-York, July, 1851. Horses, Cattle, and all kinds of Live Stock insured against Death, by the combined risks of Fire, Water, Accidents, Diseases, &c. CAPITAL, $50,000.
GEORGE MOORE, Plattsburgh, Sec'y.
I. C. MIX, Fort Ann, Gen. Agent.
October 13, 1851.

This company are now organized and ready to receive applications for insurance. It is confidently believed that the owners of valuable animals will avail themselves of the advantages offered by this mode of protection. If fire, life and marine insurances are proper and expedient, so is live stock insurance: the reasons for insurance are equally applicable to all.

For terms please apply to Company's Agents.
Plattsburgh, July 1—tf.

$1,000 Challenge.

I OFFER to place *one thousand dollars, cash*, into the hands of a party chosen, against *one thousand, to be paid* into the hands of the same party, by any manufacturer of threshers in the United States, if a machine can be found that will thresh and clean, fit for market, or seed, with the aid of *only two horses*, 100 bushels of wheat and rye, in less time than I can with my "Exceisior Wrought Iron Cylindrical Thresher and Cleaner." The grain to be thoroughly threshed, without white caps. or broken, and the straw delivered long enough to stack, and free from chaff. The winner to receive the $2,000 with both machines and power.

For circulars address JOSEPH G. GILBERT, 216 Pearl street, New-York.

Emery & Co's advertisement inApril number, with plates, termed by them "Emery's Improved Patent Rack and Pinion Power." I believe to be a direct infringement on "Urmy's Patent," and as Attorney for Mr. Urmy, I warn all who make or purchase a machine infringing on such patent, that they will be dealt with according to law. These powers can be procured from me only, at less prices than any other good railway power.

July 1—1t.

BADGER'S PATENT HORSE POWERS,

Undershot Threshers and Separators, Circular AND CROSS CUT SAWS &c.

MANUFACTURED at FLY CREEK, Otsego Co., N. Y., by E. W. BADGER, and for sale, at Wholesale and Retail, at prices that cannot fail to please.

The attention of Farmers is especially called to the simple Mechanical arrangement of the above Machine. It contains only about one-third as many wheels or rollers, (as most others now manufactured,) and those turn slowly, on small cast steel bearings, creating but little friction, consequently more power and durability. The revolving platform is so constructed that any farmer with his own tools, can take off and replace the woods when worn out, without the assistance of a practical mechanic.

The best evidence of the value and superiority of the above Machines, the Manufacturer can offer, is, that his establishment has been in constant and successful operation the past eight years, and there has never been a single machine returned or condemned, and there are hundreds that will testify to their value and usefulness. The Undershot Thresher, it is acknowledged, has no equal, and taken in connection with the most simple and efficient grain separator that has ever been invented, does not require more power than the common Overshot Threshers alone. The Circular Saw Mill has given universal satisfaction, being in use on most of the Railroads in the country, where constant service requires strength and durability. Every Machine is warranted, and we fear no competition in Threshing and separating any kind of grain, or sawing wood.

Fly Creek, Otsego Co., N. Y., June 1, 1852—1t.

Green-House Glazing.

THE undersigned having had considerable experience in glazing sashes, now offer their services to the public; work done either by the day or by the job, and warranted to give satisfaction. The most satisfactory reference can be given as to workmanship, &c. Address, BLAKESLEE & BAILEY,

July 1—1t. Waterbury, Connecticut.

LOOK HERE.

FOR SALE, a comfortable and healthy home, a farm of 251 acres in Loudon co., Virginia. Price $3,000. One hundred and fifty acres cleared, in five fields. Good grass and wheat land. Six miles from Mannassa and Alexandria Railroad, 28 from latter place. The Timber and Tan-bark alone is worth the price asked. For further particulars address, (post-paid,) Dr. WILLIAM LANPHIER, Alexandria, Virginia. July 1—1t.*

A Small Farm for Sale.

THE subscriber, having business which calls him elsewhere, will sell on reasonable terms, the homestead occupied by him, situated in the town of Schodack, Rensselaer Co., a short distance from the Hudson River and Hudson River Railroad.

The farm consists of 28 acres of land, under good improvement, with choice fruit of various kinds—flower garden, &c., tastefully laid out. The dwelling is of brick, 30 by 32 feet, with two parlors, dining rooms, bed rooms, pantries and clothes presses in abundance, together with brick kitchen and wood-house—with two large brick cisterns, for domestic and barn purposes, besides a well of pure water. Also, barn, corn-house, stable, cow-house, henery, piggery, &c., &c. An examination of the premises will satisfy any man that it is second to none in the town. The terms of sale will be one half down—the other half may remain for a term of years. For particulars address the subscriber, at Castleton, Rens. Co., N. Y.

July 1—1t.* L. G. HOFFMAN.

Morgan Horses.

Waterbury, Vt., June 5, 1852.

L. TUCKER—Sir: We are so often receiving letters making inquiries respecting the Gifford Morgan stock, whether we have any on hand, &c., that I shall esteem it a privilege to answer through the Cultivator, as that circulates so widely, it will answer many at the same time. Yours, C. & C. H. BLODGETT.

DEAR SIR—We have six colts by old Gifford Morgan,—four Stallions, viz: one four years old this season, one three years, one two years, and one yearling. The oldest two are chestnut color, the two younger are mahogany bay. The dam of the first by old Woodbury Morgan—the dam of the second by the General Hibbard—the third and fourth, from our Miss Floyd, a colt of Green Mountain Morgan, and a Messenger mare, and she is also the dam of Ackly and Gilbert's Morgan Chief, now five years old, of East Hamilton, N. Y. We have two filleys, viz: Clara Fisher, four years old next August, which we last season sent, with Miss Floyd, to the celebrated "Black Hawk Morgan," and we hope, from so fine a cross, to get some good stock. The other filly, Lady Gale, is two years old, from the dam of the pacing gelding "Hero," sold by us a year ago, and now owned by McMann of New-York city, making time in 2.14. The oldest filly sorrel, the youngest dapple chestnut. We also have one bay two year old filly, by Major Gifford, owned by Mr. Mason, of Penn Yan, N. Y.

These seven colts are all very fine, promising to do honor to the noble race of Morgan horses, but we will describe definitely, the four year old Stallion only. He is 14 hands high, short back, long hip, broad across the loin, well spread stifle,—low close jointed—flat, broad, clean, sinewy limbs. Up well forward, with fine intelligent countenance and small ears, a chestnut color, with no white. A short sharp gait, and in all respects as closely resembling the old Gifford, as any colt that can be produced. Will make a good ten hundred horse for size and value. Truly yours,

C. & C. H. BLODGETT.

To P. C. Johnson, Esq., of Cincinnati, Ohio. July 1—1t.*

EMERY & CO.'S Horse Powers and Threshers, for sale at Manufacturer's Prices, by RALPH & CO., 23 Fulton Street, New-York. May 1—3t.

WHEELER'S Horse Powers, Threshers and Separators, for sale at Manufacturer's Prices, at the Union Agricultural Warehouse and Seedstore, 23 Fulton Street, near Fulton Market, New-York. May 1—3t.

SUBSOIL PLOWS, recently improved by Prof. J. J. Mapes, together with an assortment of the most approved Plows for Sward, Stubble, and New Land—also Side Hill and Double Mould-board Plows, Cultivators, Harrows, &c., for sale at the Union Agricultural Ware House and Seed Store, RALPH & CO., 23 Fulton

May 1—3t Street, New-York, near Fulton Market.

FAN MILLS, Grain Cradles, Scythes, Field and Garden Rollers, Horse Rakes, Seed Sowers, Road Scrapers, Straw Cutters, with an assortment of Agricultural Implements, and Horticultural tools. For sale by RALPH & CO.,

May 1—3t. No. 23 Fulton street, New-York.

STOVES.

THE subscribers are prepared to furnish dealers with a full assortment of PARLOR and COOKING STOVES for coal and wood, on liberal terms.

Circulars giving particulars can be had on application.

JAGGER, TREADWELL & PERRY,
Eagle Foundry, No. 110 Beaver st., Albany, N. Y.

May 1, 1852—6t.

WATER WHEELS.

THE subscribers are making with success, Jagger's improved FRENCH TURBINE WATER WHEEL.

Tables showing the power and capacity of the same can be had on application. JAGGER, TREADWELL & PERRY,
Eagle Foundry and Machine Shop,

May 1, 1852—6t. No. 110 Beaver st., Albany, N. Y.

PERUVIAN GUANO

AND other Fertilizers. Several hundred tons of first quality of Peruvian Guano, constantly on hand for sale.

Also, BONE DUST, PLASTER OF PARIS and POUDRETTE.
A. B. ALLEN & CO., 189 and 191,
Water-st., New-York.

Jan. 1—1f.

Kinderhook Wool Depot.

THE subscribers continue the business of receiving and selling wool on commission. Several years experience, an extended acquaintance with Manufacturers, and increased facilities for storing and making advances on wool, will enable them, it is believed, to give satisfaction to those who may favor them with consignments.

All who desire it, can have their clips kept separate.

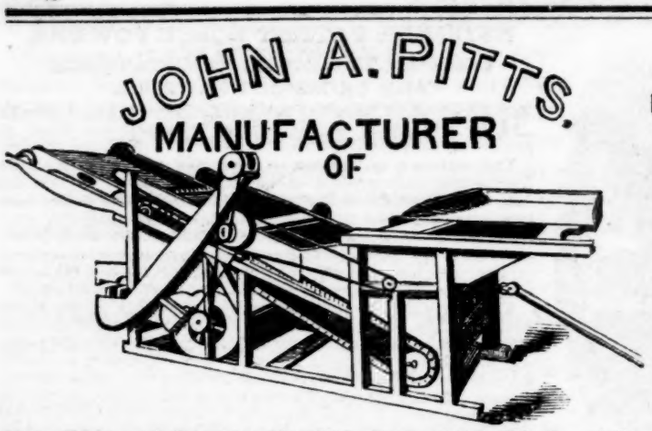
Their charges for receiving, sorting, and selling, will be ONE AND A HALF CENTS PER POUND, and insurance at the rate of 25 cents on $100 worth of wool for each term of three months and under.

Kinderkook, June 1, 1852—3t. H. BLANCHARD & CO.

Clarke's Elcelsior Churn,

OF various forms and sizes, will be furnished to dairymen, throughout the United States, at prices ranging from $2 50 to $10. The sizes generally preferred, with iron axles, crank and gearing, will be delivered at Utica, for Canal or Railroad, at $7.00 and $10 each. No extra charge is made for the perfect tempering apparatus which goes with every Excelsior Churn. Three or more thirty gallon milk churns in one frame, for horse power, is offered at about $5 per cylinder. Orders from distant places should enclose payment. Agents wanted to sell state and county rights. Circulars giving full information, terms to agents, &c, will be sent gratuitously to all who apply at any time post-paid, to the proprietor. GEO B. CLARKE,

June 1, 1852—2t.* Leonardsville, Madison Co., N. Y



PITTS' PATENT SEPARATOR
AND
DOUBLE PINION HORSE POWER.

OWING to the increased demand, and being desirous of locating at a convenient point for shipping, I have removed to Buffalo, N. Y., and have erected a large establishment for the purpose of manufacturing the above celebrated Machines, for threshing and cleaning grain at one operation.

This is the same Machine that has stood, and now stands, unsurpassed by any Machine in existence for the above purpose. It has been exhibited at nearly all the State and County Agricultural Fairs throughout the United States, and always received the *first premium*.

The Machine has recently been much improved, enlarged, and rendered more substantial in all its parts. I therefore offer it to Farmers of the different wheat growing districts, to be all I claim for it, viz. *the best Machine* for threshing and cleaning grain, now in existence.

I also manufacture Pitt's Improved Endless Chain Two Horse Power and Separator—also Pitt's Corn and Cob Mill, for grinding feed for stock.

My Horse Powers and Separators are all warranted to be a better article than can be purchased at any other shop—and if they do not, on trial, prove to be so, I will take them off the hands of the purchasers at the price they may pay me for them.

P. S.—The Patent Right on the Separator has recently been extended for a further term of seven years, and all *infringements* on *said right* will be dealt with according to law.

JOHN A. PITTS.

Buffalo, N. Y., July 1, 1852—tf.

GARDEN ENGINE.

THIS cut represents a Garden Engine, devised and manufactured by us, which we feel justified in commending to the Trade and public, as a very neat combination of usefulness and convenience.

It can be moved and managed by one man for all the purposes of its intention, as easily as a wheel barrow, and will be found highly useful in not only supplying Gardens, and Nurseries with regular showers in times of drouth, but also for showering trees and plants, and for the destruction of worms, which may be made effectual by an admixture of *Sulphur with the water.*

For washing Side-walks also, and Windows, and for the extinguishment of Fires, it presents additional claims; and rightly considered, may be regarded as a most indispensable article of usefulness and security.

The box will contain about 50 gallons of water, is placed on Cast Iron Wheels, with handles, as represented in the Cut, and the Pump will throw water about 70 feet, in a horizontal direction, and 40 feet high.

C, the end of the spout on the hose, has a thread, upon which the sprinkler *A*, is secured at the extremity *B*, when used for showering; and the whole we have no hesitation in commending as a truly useful and successful arrangement.

Orders respectfully solicited.

DOWNS & CO.

Seneca Falls, N. Y., 1852—1t.

☞ We also make a great variety of Force and Suction Pumps, which dealers are invited to examine—and upon their application will send Circulars.

Kell's Improved Horse Powers and Threshers.

WHITE & PRENTISS, successors to Philip H. Kells, would respectfully inform the public that they are now manufacturing Horse Powers, Thrashing Machines, &c., with the valuable improvements made by Philip H. Kells, and solicit the call of such as wish to purchase single or double RAILWAY HORSE POWERS, SEPARATORS, OVER OR UNDER SHOT THRASHING MACHINES, of the latest and most approved construction, and of the best workmanship and materials. From their enlarged and improved facilities for carrying on the business the subscribers are confident they can supply customers with as good work, and on as liberal terms, for cash, as any other establishment in this state.

Orders from any part of this or other states, will be immediately attended to, and promptly supplied. Hudson, June 1, 1852—3t.*

THE Tranactions of the New-York State Agricultural Society, vols. 1 to 9, for sale at the Office of "THE CULTIVATOR," price $1 per vol.

A First Class Dairy Farm for Sale.

MY farm of 320 acres, four miles south of the village of Oxford, Chenango county, N. Y., and near the Chenango Canal. 250 acres are under high cultivation, durably fenced, and well and permanently watered. The remainder is well timbered. It has a large two story mansion, five large barns, and sheds and out houses, in good repair. The soil is deep and of superior quality. It is admirably adapted for a dairy, or for grazing and grain; has a fine orchard of choice grafted fruit; and for profit, health, and beauty of location, cannot be surpassed. It is fully supplied with farming tools, and about fifty head of cows and young stock, all or any of which may be had with the farm. The New-York and Erie Railroad furnishes ample facilities for forwarding produce to the New-York market at all seasons, and the route of the contemplated Albany and Binghampton railway, passes within a few miles of the farm. The farm can be conveniently divided. Price low—title perfect. Terms most easy.

G. VAN DER LYN,

May 1, 1852—tf. Oxford, N. Y.

FIELD SEEDS.

AUSTRALIAN WHEAT.—Very superior. The berry of this grain is extra large, and makes the best of flour. It produces a greater average crop than any other variety now grown in New-York. Several years' experience in its cultivation, proves that it is less liable to rust or mildew than other kinds; and as the stalk is large and strong, it is also less liable to blow down or lodge. Price, $4 per bushel. Other varieties of wheat, such as the White Flint, Mediterranean, Black Sea, &c.

BUCKWHEAT, of the best kinds in market.

RUTA BAGA, or Sweedish Turnep Seed. The Purple Top and other superior varieties.

TURNEP SEED.—Large White Flat, Long White, Red Top Flat, Yellow Aberdeen, Yellow Stone, and other improved kinds for the field or garden

A. B. ALLEN & CO.,
June 1, 1852—tf. 189 and 191 Water st., New-York.

Albany Tile Works.

Corner Patroon and Knox Streets, Albany.

THE subscriber will furnish to Agriculturists, of the most approved patterns, Drain Tile suitable for land drainage, of a superior quality, over one foot in length, 3 to 4½ inches calibre, from $12 to $18 per 1000 pieces. They are formed to admit the water at every joint, draining land from 12 to 20 feet each side of the drain, being the cheapest and most durable article used.

Tile sufficiently large for drains around dwellings, at $4 and $8 per 100 pieces, being cheaper and more durable than brick drains.

The great importance of thorough drainage is daily becoming more apparent. Orders from a distance will receive prompt attention.

March 1—6t A. S. BABCOCK, Albany.

Albany Drain Tile Works.

No 60 Lancaster Street—West of Medical College, Albany.

THE subscriber has now on hand, Draining Tile of the following descriptions. Prices reduced.

HORSE SHOE TILE.

5½	inch Rise, or	4½	inch Calibre,	$18 00	pr. 1000.
4½	" "	3½	"	15 00	"
3½	" "	2¾	"	12 00	"

SOLE TILE.

4½	inch Rise, or	3½	inch Calibre,	$18 00	pr. 1000.
3½	" "	2¾	"	12 00	"

These Tile are over one foot in length, and are so formed as to admit water at every joint, draining land from 12 to 20 feet each side of the drain—being the cheapest and most durable article used.

Tile sufficiently large for drains around dwellings, at $4 and $8 pr. 100 pieces. Orders from a distance will receive prompt attention.

Albany, April 1, 1852—tf. JOHN GOTT.

MORGAN HORSES.

ONE Black Hawk Horse six years old, and one of the Morgan and Messenger stock, four years old this spring, will stand the ensuing season (for a limited number of mares,) at the farm of Moses Lyman, two miles south-west from Goshen Village. They are both superior horses, possessing great bone and muscle. Their color, a beautiful black.

Breeders of horses are invited to call and judge for themselves.

SILAS BENEDICT, JR.

Goshen, Connecticut, June 1, 1852—2t.*

THE ORIGINAL BLACK HAWK.

THIS celebrated horse will stand this season at the stable of the subscriber, in Bridport, Addison County, Vermont.

To the Patrons of Black Hawk.—It is proposed by the owner, that the horse shall serve a limited number of mares for this season—and those who would like to secure the services of the horse, will please send to the agent their names, (by letter or otherwise,) as those sending first, will be first served.

Good keeping will be provided for mares from a distance—and all *accidents, escapes and thefts;* will be at the risk of the owner.

N. B—Terms for the use of said horse will be, for the *season*, $40, payable in cash or satisfactory notes, on demand, with interest; and all demands for *past services*, of *Black Hawk*, and *Post Boy Morgan*, must be immediately paid to David Hill, who is alone authorised to settle the same. D. EDGAR HILL, Agent.

Bridport, Addison Co., Vt., June 1, 1852—2t.

FOWLS AND EGGS.

THE great desire manifested in New-England for procuring good Poultry, has induced H. B. COFFIN, *Newton, Mass.*, to pay particular attention to breeding and importing first rate stock. All persons desirous of having the purest and best to breed from, may depend upon being faithfully served. Among many kinds of Fowls for sale by him, are the following, which he is very particular in breeding.

Shanghae—Forbes stock.
Imperial Chinese—Marsh stock.
Chittagongs.
Royal Cochin China.
Black Shanghae.
Burmah Pootras.
White Shanghais.

Dealers in Fowls or Eggs for hatching, supplied upon liberal terms. Orders addressed to *No. 40 State Street, Boston*, will be promptly executed.

Reference to Mr. J. VAN DUSEN, of Cincinnati, Ohio, who will take orders for Fowls, as advertised above.

Boston, Aug. 1, 1851—12t.

Improved Stock.

CATTLE, of the Durham, Devon, Hereford, Alderney, and Ayrshire breeds.

SHEEP, of the Native and French Merino, Saxony, South-Down, and Cotswold.

PIGS of the Lincoln, Suffolk, and Berkshire breeds.

From our long experience as breeders and dealers in the above kinds of stock, and our excellent situation for purchasing and shipping, we think we can do as good justice to orders, as any other house in the United States. A. B. ALLEN & CO.,

Jan. 1, 1852—tf. 189 and 191 Water st., New-York.

Great Sale of Short-horn Cattle in 1852.

THE subscriber, contemplating some important changes and improvements upon his farm, will sell, *without reserve*, his entire herd of thorough bred, and high grade Short-horn cattle, consisting of upwards of ONE HUNDRED head of Cows, Heifers, Bulls, and Bull and Heifer calves.

This valuable herd of cattle has been nearly all bred by the subscriber, on his farm, and under his own eye, with a particular view to their milking quality, which he believes he has been successful in developing to a degree not excelled in any herd of cows in the United States. Ever since the year 1834 he has been engaged in breeding Short-horns, in the belief that no cattle kept by the farmers of this country, were equal to them in all their qualities, as dairy and feeding animals, and this belief has been fully confirmed by seventeen years experience.

Commencing with animals selected from the best thorough bred stocks, then to be found in this country, this herd has been continually added to, and improved by selections from the best imported stock, and their immediate descendants. During the years 1845, '46 and '47, the Short-horn blood of the late celebrated Thomas Bates, of Kirkleavington, England, was resorted to in the use of the imported bull, Duke of Wellington, and of Symmetry, (by Duke of Wellington, out of the imported Bates Cow, Duchess,) belonging to Mr. George Vail, of Troy, N. Y., which bulls were hired of Mr. Vail for three years. The animals of this herd, since grown up, inherit, more or less, of that blood, which is believed by those having opportunity to judge, both in its milking and feeding qualities, to be equal to any other previously imported; and that belief is confirmed by the prices obtained during several years past, for animals descended from that stock.

For the quality of the stock bred by the subscriber, he can, without vanity, refer to the recent Short-horn sales of Messrs. J. F. Sheafe and Lewis G. Morris, in which some of the highest priced animals were immediately descended, or purchased from this herd. The unrivalled cow, "Grace," owned by Messrs. Sherwood and Stevens, and probably the best *fat* cow ever bred in America, described in pages 183 and 184, vol. x., of the American Agriculturist, was bred by the subscriber; and numerous animals in various parts of the United States, the West Indies, and the Canadas, which have sprung from his herd in years past, may be referred to.

In 1850, the imported bull, Duke of Exeter, of the Princess tribe of Short-horns, (for pedigree of which see (10, 152,) vol. ix., of the English Herd Book,) sent out from England for Mr. Sheafe of New-York, by Mr. Stevens, from the distinguished herd of Mr. John Stephenson of Wolviston, England, was purchased and introduced into this herd; and about forty of the cows and heifers are now in calf to him, all of which will be catalogued for the coming sale. In the quality of his flesh, and in the milking excellence of his ancestry, no bull imported in the into the United States can surpass the Duke of Exeter. His own stock, in the hands of several gentlemen in the State of N. York, are confidently referred to as evidence of his value.

The herd now offered for sale for sale will consist of about FIFTY, thorough breds, including cows, heifers, and heifer calves; and probably TEN or TWELVE young bulls, and bull calves. The remainder, about fifty in number, will comprise young cows—good, proved, milkers—heifers and heifer calves, together with a few superior bull calves, from the best milking cows, of high grade, Shorthorns, with an occasional dash of Devon blood intermixed—the best of useful, family cows.

All the calves, or nearly all, both thorough-bred and grade, will be the get of the Duke of Exeter; and all the cows, and two-year-old heifers will be bulled by him, (if he lives,) previous to the sale; thus will be combined the blood of the Bates, and the Stephenson stocks, comprising as much excellence, both in milk and flesh, as can be found in any animals whatever.

In addition to the stock above enumerated, will be eight thorough bred Herefords—three cows, one two-year-old bull, one yearling bull, and three calves. One of the cows, (Rarity,) was imported by Messrs. Corning and Sotham in 1841. The other cows and calves are her descendants by bulls of the same importation.

Also, two or three Devon bull calves, got by Mr. Ambrose Stevens' imported bull "Candy," bred by Mr. Quartly, of Devonshire, England, and out of cows descended from the herd of the late Earl of Leicester.

Also, two pairs of thorough-bred, six-year-old Short-horn oxen, and two or three pairs matched two and three year old steers.

Also, ten or twelve South Down buck lambs, got by an imported Ram from the celebrated flock of Jonas Webb, of Babraham, England, and out of Ewes descended from the flocks of Mr. Webb, and Mr. Ellman, of Sussex.

The sale will be on the 18th August, on the premises occupied by Peter Gurbrane, at the Homestead farm of Gen. Van Rensselaer, on the Troy Road, two miles above Albany, where the stock will be about ten days previous to the sale.

Catalogues will be ready by 15th June, and forwarded to all post-paid applicants.

For further particulars, inquiries may be made by letter, directed to the subscriber, or to A. B. ALLEN & CO., New-York.

June 1. LEWIS F. ALLEN, Black Rock, N. Y.

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THE subscribers solicit the attention of the public, to the large and varied assortment of Agricultural and Horticultural Implements, Field and Garden Seeds which they have constantly on hand, and offer for sale at the lowest prices, and on the best terms.

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FOR sale, 10 Pigs, two months old, from my imported Boar and Sow, warranted pure—price ten dollars per pair. Also the above Boar, two years old, from some of the best stock in Berkshire—and noticed in the "American Agriculturist" for Feb. 1851. Price $25.

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Smyrna, July 1, 1852—2t.* J. W. COLLINS.

TRIAL OF IMPLEMENTS

BY THE

New-York State Agricultural Society,

July, 1852, at the Village of Geneva.

THE trial of Grain Reapers, Mowing Machines, Steam Engines for Farm purposes, Grain Drills, Horse Powers, Flax and Hemp Dressing Machines, Thrashers, Seed Planters, Cultivators and Broadcast Sowers, will take place at Geneva, between the 12th and 26th of July next. The particular day of the commencement of the trial will be given hereafter. (The competition will be open to all who become members of the Society, and enter their machines for the trial.) Upwards of $400 will be awarded to the successful candidates, and Inventors are invited to be present with their machines and engage in this trial, which will be conducted in a manner to secure practical and valuable results, that will be of importance to the whole Agricultural interests of our country.

☞ Persons desirous to compete must become members of the Society by the payment of $1.00, and enter their names and their implements with the Secretary, by the 5th of July.

All desired information, as to the regulations for the trial, will be furnished on application to the Secretary. B. P. JOHNSON,

Agricultural Rooms, Albany, May 7, 1852. Secretary.

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June 1, 1852—tf. 189 and 191 Water st., New-York.

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